

S. MAW, SON & THOMPSON'S BATH GLOVES, RUBBERS, &c.

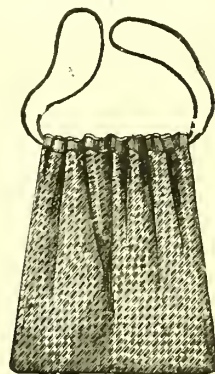
	Gloves. (Pairs.)	Straps.	Pads.		Gloves. (Pairs.)	Straps.	Pads.
CALEFACIO OR BADEN, No. 1, soft Brown . . . per doz.	6/0	9/0	5/4	HONEYCOMB, White. per doz.	5/4	9/0	5/4
CALEFACIO OR BADEN, No. 2, hard Brown . . . per doz.	6/0	9/0	5/4	REVERSIBLE, No. 1, one side soft Brown, the other best White Turkish . . per doz.	6/8	11/0	5/4
CALEFACIO OR BADEN, No. 3, soft Brown, assorted patterns, per doz.	6/6	9/0	5/4	REVERSIBLE, No. 2, one side hard Brown, the other White Honeycomb . . . per doz.	6/8	11/0	5/4
CALEFACIO OR BADEN, as- sorted patterns, export quality, per doz.	4/0	(Red labels)		REVERSIBLE, No. 3, one side Egyptian Loofah, the other best White Turkish, per doz., single	4/6 and 5/6	16/0	—
CALEFACIO (the U.S.), Striped soft Brown . . . per doz.	6/6	9/0	5/4				

TURKISH, White, per doz. pairs, 2/9, 3/- & 4/-; SUPER, 4/9 and 6/-

TURKISH, Assorted, Coloured Stripes, per doz. pairs, 5/6 & 6/-

WATERPROOF SPONGE BAGS.

	1	2	3	4	5	6
	7×6	8×7	9×8	10×9	11×10	12×11
CHECK, Super ...	6/-	7/-	9/-	11/-	12/6	16/- per doz.
SATIN ...	7/6	9/6	11/6	14/6	18/-	21/- "
SATTEEN (Check double faced) ...	7/6	9/6	11/6	14/6	16/6	18/6 "
" Fancy ...	6/-	7/3	8/3	10/-	11/6	13/- "
SILK ...	7/-	9/-	11/-	13/6	17/-	20/- "



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WITH BALL CLASP FASTENINGS, NICKEL-PLATED.

	No. 2	3	4	5	6
	8×7	9×8	10×9	11×10	12×11 in.
CHECK ...	10/-	12/-	14/-	16/-	18/- per doz.
CHECK, Super ...	16/-	18/-	20/-	26/-	28/- "
PAISLEY ...	18/-	20/-	22/-	28/-	32/- "
SATTEEN, Fancy ...	12/-	14/6	16/6	18/6	21/- "

For other descriptions see Quarterly Price Current, page 75.



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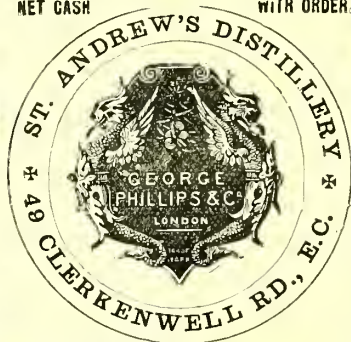
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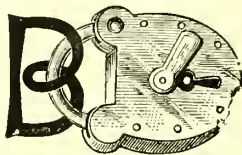
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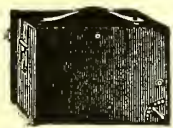
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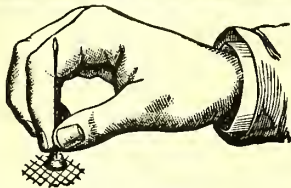
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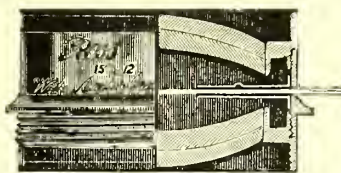
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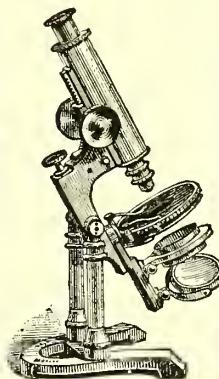
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[1]

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Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

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Fuerst Bros.
Lorenz, H.
Morris & Callard (Salts)

ACIDS

Boulton, J., & Co., Lim.

ADVERTISING

SPECIALITIES
Lawton, J. W. | Sears, F. W.

AERD & MINRLS

Apollinaris Co.
Barnett & Foster
Burroughs, Wellcome & Co.
Chemists' Aerated Waters Association, Lim.
Ellis & Son (Ruthin)
Franz, Josef
Idris & Co., Lim.
Ingram & Royle
Jewsbury & Brown
Johannis Co.
Kimmond & Co.
Lewico Water
Mills & Co. (Bourne)
Roshach Water Co.

DITTO PLANT

(See SYPHONS AND ESSENCES.)
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Gueret Freres
Meadowcroft & Son
Rylands, Dan, Lim.
Tyler, Hayward, & Co.

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Anstralian Drug Co.
Kemphorne, Prosser & Co.
Lennon, B. G., & Co. [(N.Z.)]
Peake, Allen & Co.
Prosser, Taylor & Co.
Soul, W. H., & Co.

ALKALOIDS

Howards & Sons (Cinchona)
Smith, T. H., & Co.

AMMONIA

May & Baker, Lim.
White, A., & Sons
Woolley, Sons & Co.

APPARATUS

Bennett, Sons & Shears
Berend, O., & Co.
Christy, T., & Co.
Hicks, J. J. | Ohlson, A.
Orme, J., & Co. (Scientific)
Perken, Son & Rayment
Pothe, H., & Co.

BAKING POWDER

Goodall, Backhouse & Co.

BANDAGES

Bailey, W. H., & Son
Robinson & Sons
Schulze, F., & Co.

BATH & FLESH

GLOVES

Barclay & Sons, Lim.
Chemists' Association, Lim.
Maw, S., Son & Thompson
Pattison, G. | Solport Bros.

BICARB. SODA

Brunner, Mond & Co., Lim.
Howards & Sons
May & Baker, Lim.

BISMUTH PREP.

Hearon, Squire & Francis
Hewlett & Sons
Howards & Sons
May & Baker, Lim.

BOOKS

Hargreaves, Dr., M.D.

BORAX

Howards & Sons
Mack's Starch

BOTTLES

Ayre & Calder Bottle Co., Lim.
Barnett & Foster
Barrett, R. H.
Brady & Hinchliffe, Lim.
Evans, Sons & Co.
Gilbertson, H., & Sons
Hearn, E. A., & Co.
Isaacs & Co.
Johnsen & Jorgensen
Kilner Bros.
Pothe, H., & Co.
Rylands, Dan, Lim.
Togood, W.
"W" Brand Bottles
Vionden, E.

BOXES

Austin & Co. (Cardboard)
Ayrton & Saunders
Crowden & Garrod
Evans, Sons & Co.
Kent, G. B., & Sons
Kilner Bros. | Maxime & Co.
Robinson & Sons
Rylands, Dan, Lim.

BRUSHES

Crowden & Garrod
Evans, Sons & Co.
Ket, G. B., & Sons

BUNSEN BURNERS

Berend & Co.

BUTTER COLR., &c.

Boulton, J., & Co., Lim.
Crawshaw & Co.
Hartick & Co., Lim.

CACHOUS

Bleasdale & Co.
Byton, Astley & Co.
Jackman, Thos. | Pascali, J.
Warrick Brothers

CAMPHOR

Fuerst Bros.
Howards & Sons
May & Baker, Lim.
Morrison, J., & Co. (Compre)

CAPSULES

Denoual, J. (Medicinal)
Duncan, Flockhart & Co.
Evans, Sons & Co.
Hartick & Co., Lim.
Hooper, H., & Co.
Lofthouse & Saltmer
Richardson, John, & Co. (Leicester), Lim.
Warrick Brothers
Wyeys, Lim.

CARBOLIC ACID

Calvert, F. C., & Co.
Wandsworth Chemical Works
Lim.

CSCRA SAGRADA

Anderson & Co.
Duncan, Flockhart & Co.
Evans, Sons & Co.
Farris & Co.
Moss, J., & Co.

CASTOR OIL

Allen & Hanbury's
Christy & Co. (Aromaticum)
Fuerst Bros.

CATALOGUES

Newbery, F., & Sons
Maw, S., Son & Thompson
May, Roberts & Co.
Sauler & Sons

CERESINE WAX

Boehm, Fredk.

CHECK TILLS

National Cash Till Co.
Patent Voucher Check Till Co., Lim.
Stokes, G. R., & Co., Lim.

CHEST PROTECTRS

Chemists' Association, Lim.
Hockin, Wilson & Co.
Liverpool Patent Lint Co.
Newbery, F., & Sons
Pattison, G. | Solport Bros.

CHEMICALS

Boehm, Fredk.
Boehring & C. F., & Soehne
Boulton, J., & Co., Lim.
Bramwell, E., & Son
Brunner, Mond & Co., Lim.
Fletcher, Fletcher & Stevenson
Fuerst Bros.
Goodall, Backhouse & Co.
Hill, A. S., & Son (Clarke)
Hodgkinson's, Treacher & Howards & Sons (Pharm.)
Levermore, Aug., & Co.
Lofthouse & Saltmer
Lorenz, H.
May & Baker, Lim.
Morris & Callard | Moss & Co.
Smith, T. H., & Co.
Tyler, T., & Co.
Washington Chemical Co.
White, A., & Sons
Zimmermann, A. & M.

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Government Sanitary Co.
National Chemical Co.

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Davenport (Browne's)
Towle, A. P., & Son

CHLOROFORM, &c.

Duncan, Flockhart & Co.
Macfarlan, J. F., & Son
Salmon & Co., Lim.
Smith, T. H., & Co.

COCAINE-HYDRO.

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Zimmermann, A. & M.
Howards & Sons

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Rowntree & Co.

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French Hygienic Soc.
Stephen Smith & Co. (Hall's)

CO-LIVER OIL
Allen & Hanburys
Bessdale & Co.
Burroughs, Wellcome & Co.
Evans, Sons & Co.
Hill, A. S., & Son
Hockin, Wilson & Co.
Hudson & Co.
Robinson & Co.
Smith, T. & H., & Co.
Woolley, Sons & Co.

COFFEE
Symington, T., & Co. (Coffee
Essences)
White, Fairchild & Co.

COLAPSE TUBES
Bettis & Co.

COMP. MEDICINS
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Blyton, Astley & Co.
Burroughs, Wellcome & Co.
Fuerst Bros.
Hooper, B., & Co. | Lso & Co.
Lloyd, T. Howard & Co.

CONCENT. LIQRS.
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Lloyd, T. Howard & Co.

CONFECTIONERY
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Crawshaw & Co.
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Gibson, R., & Sons
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Southwell, C., & Co.
Warrick Brothers

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Cheng, D. | Pattison, G.
Solport Bros.

COTTON WOOL
Haynes, G., & Co. (Absorbent)
Robinson & Sons (Absorbent)
Ranger, J., & Sons

CRSHD LINSEED
Mumford, S. G.

DENTIFRICES
Bailey's Toilet Co.
Beecham, T.
Bronnley, H., & Co.
Dorothy Dentifrices Co.
Hanson, O.
Jewsbury & Browne
Lakenham, J. J.
Quelch, H. C.
Robertshaw & Co.
Stevens, P. A.
Sutton, O., & Co.
Thompson & Capper
Warrick Bros. | Wilson, A.
Woods, W. (Arecia Nut)

DISINFECTANTS
Blyton, Astley & Co.
Brooks, T.
Calvert, F. C., & Co.
Drysedale, J. W., & Co.
Dusek Bros.
Eureka Manufacturing Co.
Fletcher Bros. & Co.
Government Sanitary Co.
Grindley & Co., Lim.
Jeyes' Sanitary Compounds Co.
Mackey, Mackey & Co.
Mason, C. E., & Co.
May & Baker, Lim.
National Chemical Co.
Sanitas Co.
Seabury & Johnson
Tyner, T., & Co. [Lim.]
Wandsworth Chemical Works.

DOG MEDICINES
Spratt's Patent, Lim.

DRUGGISTS' SUN.
Ayrton & Saunders
Bailey, M., & Co.
Barclay & Sons, Lim.
Bush, H. W., & Co.
Chemists' Association, Lim.
Chemists' Mineral Water
Association, Lim.
Crowden & Garrod
Evans, Lescher & Webb
Evans, Sons & Co. (Savars)
Fordham, W. B., & Sons, Lim.
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Hockin, Wilson & Co.
Idris & Co., Lim.
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May, Roberts & Co.
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Quelch, H. C.
Ranger & Sons
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Schulze & Co.
Tidman & Son | Toogood, W. O.
Tver Rubber Co.
Varns & Co.
Wood, Vincent | Young, J.

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Burroughs, Wellcome & Co.

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Burton, W., & Sons

DYES, &c.
Ayrton & Saunders
Buiton, W., & Sons
Crawshaw & Co.
Hatriek & Co., Lim.

EAU DE COLOGNE
Farina, J. M.
Hockin, Wilson & Co. (Farina)
Martin, Mar. (Nim)
Moench, Oscar, & Co.
Mulhens, F.

ELECTRIC APPAR.
Darton, F., & Co.
Gent & Co. | Orms & Co.

EMBOCCATION
Day & Sons

ENEMAS
Barclay, Lim.
Evans, Sons & Co.
Sanger & Son

ENGRAVERS
Corsan, J. R.

ESSENCES
Boehm, Fredk.
Boulton, J., & Co. (Lim.)
Bratby & Hinchliffe, Lim.
Burgoyne, Burdidge & Co.
Rush, W. J., & Co.
Fletcher, Fletcher & Stevenson
Goodall, Backhouse & Co.
Idris & Co., Lim.
May & Baker, Lim.
Meadowcroft & Son
Newhall & Mason
Rylands, Dan, Lim.
Stevenson & Howell
Tysr, P. (Anchoriss)
Tysr, T., & Co.
Woolley, Sons & Co.

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Barrett, A.
Boehm, Fredk.
Rush, W. J., & Co.
Clay, Dod & Co.
Cocking & Co. (Japan Pepper-
Dodge & Co. (mint)
Dors, J. H. L.
Evans, Sons & Co.
Hodgkinson, Treachsr &
Clarke
May & Baker, Lim.
Meadowcroft & Sons
Sozio & Andrioli
Stevenson & Howsll
Synes & Co.
Treatt, R. C.
Vogt, G., & Co.
Warrick Bros.
Witrofsky, E.
Wright, Layman & Umney

ETHER
Duncan, Flockhart & Co.
Howards & Sons
May & Bsker, Lim.
Robbins, J., & Co.
Tyner, T., & Co.
White, A., & Sons
Woolley, Sons & Co.
Wright, Layman & Umney

EUCALYPTUS
Bickford's
Drysedale, J. W., & Co.
Evans, Lescher & Webb
Fletcher, Fletcher & Stevenson
Grinwads, Riddle & Co.
Langham, Mackay & Baker
Murdoch, J., & Co.
Nasman Eucalyptus Oil Co.
Vogt, G., & Co.
Woods & Co.

EXALGINE
Kuhn, B.

EXTRACT MEAT
Brand & Co.
Bush's Liquid Beef
Idris & Co. (Viking Co.)
Liebig Co.
Liquor Carnis Co., Lim.
Mason, G., & Co., Lim.
Wyeth, J., & Brother

EXTRACTS, FLUID
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Burgoyne, Burdidge & Co.
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire & Francis
Hooper, B., & Co.
Lloyd, T. Howard, & Co.
Moss & Co.
Potter & Clarke
Vogt, G., & Co.
Wright, Layman & Umney

FEEDG BOTTLES.
Burroughs, Wellcome & Co.
(Thermo Safe)
Chemists' Association, Lim.
Evans, Sons & Co.
Hearn, E. A., & Co.
Hockin, Wilson & Co.
Kilner Bros. | Lynch & Co.
Marriott, E., & Co.
May, Roberts & Co.
Maw, S., Son & Thompson
Spence & Co.

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Fordham, W. B., & Sons, Lim.
Mawson Filter Co.
Silicated Carbon Filter Co.

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Strong, Christy
Tunbridge & Wright

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Benger's Food
Brand & Co.
Chinnail, H. B.
Evans, Sons & Co.
Frame Food Co., Lim.
Goodall, Backhouse & Co.
Hearon, Squire & Francis
Idris & Co., Lim.
Liebig Co.
Liquor Carnis Co., Lim.
Lorimer & Co.
Mason & Co., Lim.
Nestlé, H.
Ridge, Dr.
Wyeth, J., & Bro.

FORMULA
Brooks, T.

GINGER ALE
Mills, R. M., & Co.

GLYCERINE
Blyton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Fuerst Bros.
Grest, R. W., & Co.
Pries's Candle Co., Lim.
Watson & Sons

**GOUT & RHEU-
MATIC PILLS**
Bromley, C.
Eads, Geo.
Prout & Hansant (Blair's)

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Blyton, Astley & Co.
Evans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. Howard, & Co.
Wright, Layman & Umney

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Fink & Co. (Arabic, &c.)
Levermore, Aug., & Co.

HAIR PREP.
Anglo-American Drug Co.,
Lim.
Chesebrough Co.
Thorne, Squire & Francis
Triefelt, H. P., Lim.

HERBS
Newhall & Mason
Potter & Clarke

HERB BEER EXTS
Newhall & Mason
Potter & Clarke

HOMOEOPATHIC
Epps & Co.
Kens & Ashwell
Leath & Ross
Thompson & Capper
Watson & Wates

HYPOPHOSPHITES
Duncan Flockhart & Co.
Fellows
Fletcher, Fletcher & Co.
Symes & Co.
Tyner, T., & Co.

INDIARUB. GOODS
Tver Rubber Co.
Warms, W., & Co.

INHALERS
Burroughs, Wellcome & Co.
Hockin, Wilson & Co.
Krohn & Sesemann
Spinoce, Co., The
Toogood, W.

INK [See MARKING INKS]
Bewley & Draper

INSECTICIDES
Rocke, Tompsett &
Steiner & Co.

INSURANCE
London and Lancashire Fire
Insurance Co.

IRISH VELS
Warren, A., & J.

KETCHUP
Tyner, P.

KOLA PREPRTN
Christy, T., & Co.

LARD
Ewen, J., & So

LINT
Liverpool Lint Co.
Maw, S., Son & Thompson
Newsome, C.
Robinson & Sons

LIQUORICE
Dennis Di Luggo & Co.

LITHIA
Fuerst Bros.

LOZENGES
Allen & Hanburys
Blyton, Astley & Co.
Davidson & Gray
Gibson, R., & Sons (Manfrs.)
Hill & Son
Jackson, T.
Raines & Co. | Warrick Bros.

MACHINERY
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Burroughs, Wellcome & Co.
Gardner & Sons
Mayfarth, Ph., & Co.
Ohlson, A.
Pindar, J. W.
Strutners & Craik (Sifting)
Werner & Pheideler (Knead-
ing and Sifting)

MAGNESIA
Bush, W. J., & Co.
Duncan, Fuller & Co.
Evans, Sons & Co.
Grest, R. W., & Co.
Henry, T. & W. (Calcedin)
Hill, A. S., & Sons
Washington Chemical Co.

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Allen & Hanburys
Burroughs, Wellcome & Co.
(Kopler's)
Glendenning, W.
Hearon, Squire & Francis
Montgomery & Co.
Moss, J., & Co.
Raines & Co.
Richardson, John, & Co. (Lei-
cester), Lim.
Robinson & Co.

MARKING INKS
Bond, John (Crystal Palace)
(Ink and Pencils)

MEDICINE CHSTS
Burroughs, Wellcome & Co.
Day, Son & Hewitt (Veterinary)
Hockin, Wilson & Co.
Tyner, P. | Vint, T. D.

MERCURIALS
Fuerst Bros.
Howards & Sons
May & Baker, Lim.
Tyner, T., & Co.

METH. SPIRITS, &c.
Boord & Son | Burroughs, J.
Jones & Co.
Phillips, G., & Co.
Smith, S., & Co.
Warren, A., & J.

METHYLENE
Robbins, J., & Co.

MICROSCOPES
Darton, F., & Co.
Perken, Son & Rayment

MILK
Nestlé, H. (Condensed)

MORPHIA
Macfarlan, J. F., & Co.
Smith, T. H., & Co.

**NATURAL
MIN. WATER**
Hunyadi Janos

OILS, PAINTS, &c.
Boord, J. H., & Co.
Fox, W., & Sons
Pinchin, Johnson & Co.

OINTMENT BASES
Burgess, E.
Burgess, E., Jun.
Burroughs, Wellcome & Co.
Lanoline
Chesebrough Co. (Vaseline)
Christy, T., & Co.
Lloyd, T. Howard, & Co.
Richardson, J., & Co. (Leice-
ster), Lim. (Anaspalins)

OPIUM
Hopli, R., Co.

OPTICIANS
Botwright & Grey
Darton, F., & Co.
Perken, Son & Rayment

OTTO OF ROSE
Fuerst Bros.
Witrofsky, J. R.

OXIDE OF ZINC
Huhnbuck, T., & Son, Lim.

PAPAIN
Kuhn, B. (Dr. Finkler)

PAT. MEDCNS, &c.
Anglo-Amer. Drug Co., Lim.
Atkinson & Barker (Infant
Preserv.)
Barclay & Sons, Lim.
Beecham, T. (Pills)
Bow's, Dr. (Liment)
Bromley, C. (Gout and Rheu.)
Chemists' Association, Lim.
Clarke's Blood Mixture
Congreve, G. F.
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Fenning (Powders)
Goodall, Backhouse & Co.
Holloway (Pills and Oint.)
Hovenden & Sons
Lalor (Phosphodyne, &c.)
"Lungeli" Co.
May, Roberts & Co.
Newberry, F., & Sons
Popular Remedies Mfg. Co.
Roberts & Co. (Foreign)
Rooke, Dr., Lim.
Southall Bros. & Barclay
Sutton, W., & Co.
Wilson, A. (Bunter's Nervins)

PEPSIN, &c.
Armour & Co.
Burroughs, Wellcome & Co.
Chassaing & Co.
Fletcher, Fletcher & Stevenson
Kuhn, B.
Newberry, F., & Sons (Ingluvin)
Stern, G., & G.
Warner & Co. (Ingluvin)

PEPPERMINT OIL
Bush, W. J., & Co.
Cockin & Co.
Stevenson & Howell

**PERFUMERY,
FANCY SOAPS**
Barclay & Sons, Lim.
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Blyton, Astley & Co.
Brooks, T. (Solid Perfume)
Burroughs, Wellcome & Co.
Bush, W., & Co.
Chemists' Association, Lim.
Chesebrough Co.
Evans, Sons & Co.
Ewen, J., & Sons
Farina, J. M.
Hovenden & Sons
Mulhens, F.
Newberry, F., & Sons (Berdce)
Pears', A. & F., Lim.
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Tidman & Son | Treatt, R. C.
Triefelt, H. P., Lim.
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Wast, H. (Ozell's Mosa)
Woolley, Sons & Co. (Powder)
Wright, Layman & Umney

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May & Baker, Lim.
Robbins & Co.

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Barclay & Sons, Lim.
Dee Oil Co., Lim.
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Armour & Co.
Arthur & Co.
Barron, Harveys & Co.
Boehm, Fredk.
Boshinger, C. F., & Sohn
Boulton, J., & Co., Lim.
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Bryce & Lumpp
Burgoyne, Burdidge & Co.
Burroughs, Wellcome & Co.
Chassaing & Co.
Delacere, Ch., & Co.
Duncan, Flockhart & Co.
Farris & Co.
Fletcher, Fletcher & Co.
Giles, Schacht & Co.
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Howards & Sons
Jeyes' Sanitary Compounds Co.
Kaith & Co. (Conc. Tinctures)
Lambert Pharmaceutical Co.
May & Baker, Lim.
Moss, J., & Co.
Potter & Clark
Richardson, John, & Co. (Lei-
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Sutton, W., & Co.
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Whites, Alfred, & Sons
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Anderson Apothecaries' Hall
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Burgess, E.
Burgess, E., Jun.
Day, J. Dod & Co.
Davidson & Gray
Deacon, H. J.
Dr. Williams
Eade's Gout Pills
Evans, Sons & Co.
Harrolins Pill Co.
Hearon, Squire & Francis
Hill, A. S., & Son (Holloway's)
Lloyd, T. Howard, & Co.
McKesson & Robbins
Newberry, F., & Sons
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Wand, S. (Pearl Coated)
Warner, W. R., & Co. (Coated)
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Pindar, J. W.
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Tyer, P.

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Pharmacy, Lim.
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Brady & Hinchliffe, Lim.
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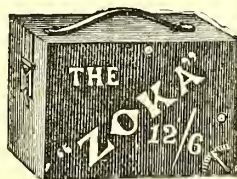
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LIQUEUR..... Per doz. 45/-
WINE „ 38/-

CASE OF EITHER (50 Bottles),
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ANCOATS 146 MINORIES
MANCHESTER LONDON

81 ROBERTSON STREET, GLASGOW.

SYPHONS ... 1/6 1/8 and 1/10 each.

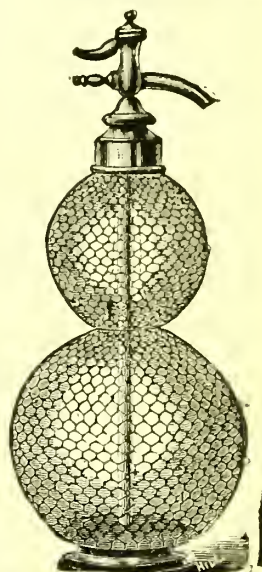
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1	2	3	4	5	8 pint.
6/-	6/8	7/6	8/6	10/5	16/- each.

Including two funnels and stopper for charging.
The tops of these Seltzogenes are made of pure block tin, guaranteed

Messrs. N.C. Agents for All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.

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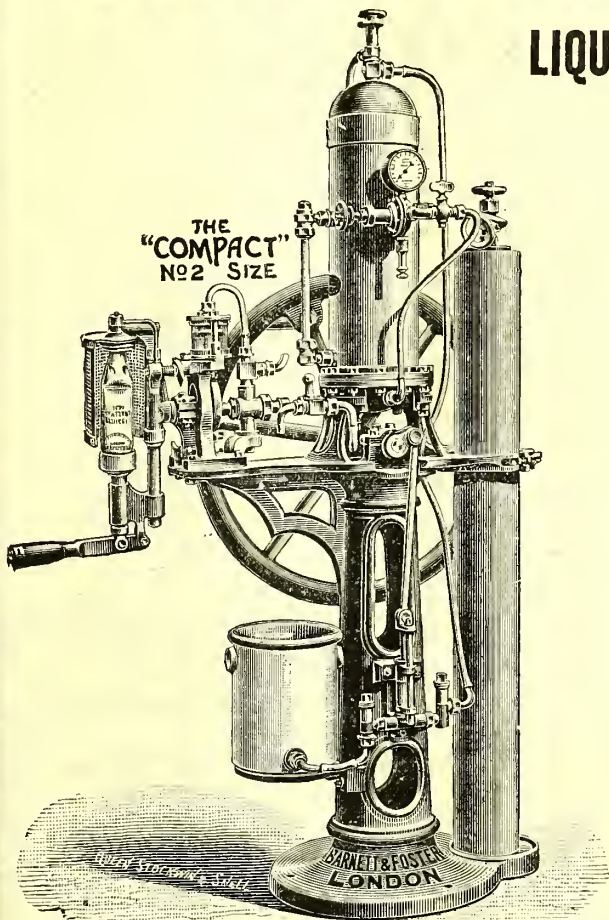
NAME	Per Dozen		Original Packages				NAME	Per Dozen		Original Packages			
	Bots.	$\frac{1}{2}$ Bots.	Bottles		$\frac{1}{2}$ Bottles			Bots.	$\frac{1}{2}$ Bots.	Bottles		$\frac{1}{2}$ Bottles	
Æsculap	15/-	12/-	25	30/-	50	50/-	Levico	—	15/-	—	—	—	—
Apollinaris	6/3	5/-	50	25/-	100	39/-	Pullna	12/-	8/-	40	36/-	40	25/-
Bourboule (La)	11/-	—	50	42/-	—	—	Reginaris	5/6	4/6	50	21/-	50	17/-
Carlsbad	12/-	—	50	46/-	—	—	Reisdorf	6/-	—	50	25/-	—	—
Condal	—	14/-	—	—	50	56/-	Rosbach	6/-	5/-	50	24/-	100	36/-
Contrexeville	9/-	—	50	35/-	—	—	Royat	9/-	—	50	34/-	—	—
Flitwick	24/-	15/-	—	—	—	—	Rubinat	15/-	9/-	25	30/-	50	36/-
Franz-Josef	—	12/-	—	—	50	42/-	St. Galmier	6/-	—	50	22/-	—	—
Friedrichshall	13/-	10/-	25	25/-	50	40/-	St. Marco	11/-	6/6	50	42/-	100	52/-
Gerolstein	5/-	4/-	50	20/-	50	15/-	Selters	6/-	4/6	50	24/-	50	17/-
Hunyadi-János	15/-	13/-	25	30/-	50	50/-	Vals	8/6	—	50	33/-	—	—
Johannis-Brunnen	6/-	4/6	50	22/-	100	35/-	Vichy (State Springs)	8/6	7/6	50	33/-	50	29/-
Kronenquelle	10/-	—	50	40/-	—	—	"Celestins," "Grande-Grille," &c.	—	—	—	—	—	—

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SODA WATER MAKING

WITH LIQUEFIED CARBONIC ACID GAS.

THE
"COMPACT"
No 2 SIZE



From Mr. A. THOMPSON, M.P.S., 93 High Street, Putney, S.W.

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I am more than satisfied with the "Compact" Machine, which answers my utmost requirements. I have nearly trebled my sale this last three weeks.

I find the waters produced by this Machine far better than I have been able to obtain from any one, being much more saturated with the gas, and the Syphons emptying themselves straight off, without shaking.

From Mr. C. F. WYATT, Chemist, Rochester.

December 16, 1892.

Replying to your inquiry as to "Compact" Soda Water Machine I can only say that I am satisfied with it and the work it does in every possible way. The aëration of the water is perfect, and my customers are now highly pleased with the quality of the goods.

I would also add that beyond the renewal of a few washers, no repairs of any kind have been required since I had it, some fifteen months since.

THE No. 2 "COMPACT" Machine (AS SHOWN).

Producing capacity, by hand, 35 dozen per hour.

PRICE £48.

Or, if fitted for steam, 70 dozen per hour (with an extra filling machine).

NOTE.—Any kind of filling machine can be attached to the "Compact" Machines, EITHER for Syphons, Internal Stopped, Cork, or Screw Bottles.

Iron Vessel containing an average of } 10s.
28 lbs. by weight of Liquefied Gas } each.

And has sufficient Gas to manufacture about 18 gross of highly-charged Soda Water (10-oz. Bottles), or double this quantity of splits.

These Machines occupy little space, and are ready for use immediately! They require no fixing! Are self-contained and produce soda water, lemonade, &c., of the highest class and greatest purity, at a minimum of cost.



THE 'LONDON-MADE' SYPHON

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It is the Cheapest, Strongest, Hardest, and Best in the World.

Pure Block Tin Tops.

PRICE 1/6 EACH.

Nickel-plating Tops from 3d. each.
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THE PORTABLE CYLINDER

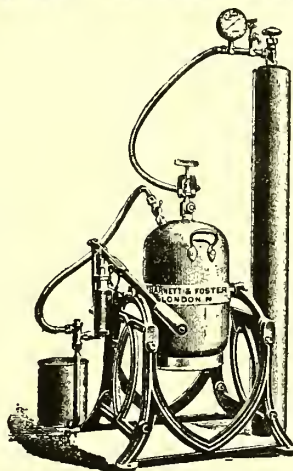


table Cylinder with Pump fitted to Rocker.

As here shown, is charged with plain filtered water while on the Rocker; the gas from the vessel is then slowly turned on, and the copper cylinder rocked backwards and forwards sharply so as to agitate or mix the water and gas together. When charged to the required pressure (about 110 lbs., shown by the pressure-gauge), it can be removed and attached to the Counter Fountain, or for a filling machine if desired.

Prices.

	£	s.	d.
Six-gallon Tinned Copper Cylinder	5	10	0
Cast-iron Rocker ..	1	2	6
Flexible Pipe, Pressure-gauge, Safety-valve, & Connections ..	3	3	0
If fitted with Pump for pumping the water into the cylinder (and so avoiding waste of gas) extra	5	5	0

Prices of larger Cylinders upon application.

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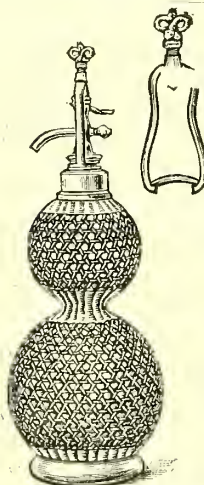
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**EUGENE GERAUT & CO.'S
LATEST
NEW PATENT SELTZOGENE**

PATENT No. 18,305.

For the immediate Preparation of Seltzer Water, Eau de Vichy,
Soda Water, Sparkling Lemonade, Aërated Waters, &c.

Finding so many complaints through the screws of Seltzogenes getting worn and Customers not screwing taps on tight enough, E. G. & Co. have patented the above improvement in their Seltzogenes, which differs materially from the numerous kinds that have from time to time been introduced, there being no screwing required, thus the machines cannot easily get out of order.

In place of Screw on Tap, there is a Clip, which is easily fastened to the Seltzogene, any Child being able to Screw the little Key at Top, and making perfectly Air-tight the Apparatus.

**WEAR AND WORKING GUARANTEED.
NO MORE SCREWING REQUIRED. TAP
CANNOT GET CORRODED.**

CONTRACTORS TO HER MAJESTY'S GOVERNMENT.

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Seltzogenes and Gazogenes Repaired.

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" " HOPS	FOAMINE
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Mason's Wine Essences.

GINGER	SARSAPARILLA
RASPBERRY	LEMON SQUASH
COWSLIP	CHERRY
STRAWBERRY	PEPPERMINT
ORANGE	PORT
BLACK CURRANT	SHERRY
RED CURRANT	CLOVES
LEMON	ELDERBERRY
LIME FRUIT	DAMSON
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QUININE	GOOSEBERRY
PINE APPLE	"WARMINE"

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PRIZE MEDALS
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ENGLISH MAKE.

Perfect Action. Full Strength. Best Workmanship. Thoroughly Reliable.
Well Tested. Metal Guaranteed Free from Lead. Lowest Prices
consistent with First Quality.

THE ORIGINAL AND ONLY REAL
Non-Metallic SYPHONS & SELTZOGENES.
The "MAJOLICA" Porcelain Lined Heads

(By Royal Letters Patent, No. 15,636).

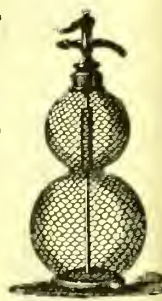
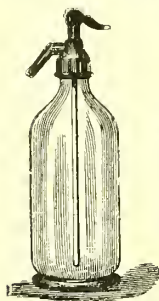
Metallio contamination of the waters utterly impossible. Vide *The Lancet*, 30 April, 1890, and other
scientific opinions.

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(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopœia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

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ORANGE WINE

Of Finest Flavour and Quality, and specially suitable for the Preparation of Orange Quinine Wine.

"ROSBACH" TABLE WATER

(Concession of HERTZ & COLLINGWOOD.)

Sparkling, delightful beverage. No Salty taste. Excellent by itself, and admirable mixed with milk, malt extract, wine, or spirits.

SAMPLES FREE TO THE MEDICAL PROFESSION THROUGH CHEMISTS.

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"FRANZ JOSEF" WATER.

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Natural Aperient. Strongest in the cathartic salts, and, fortunately, it happens to be not unpalatable.

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Natural Arsenio Ferric Water. Two strengths (the mild and strong). In "Health Springs of Germany and Austria," Dr. Buckland writes of LEVICO: "It has been found very useful in Chlorosis and Anæmia due to Hæmorrhage, Wasting Diseases and Malaria, in Scrofula and Syphilis, in Chronic Eczema, Lichen Planus, and Lichen Ruber."

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"SALVO PETROLIA"

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Manufactured by the Proprietors in Five distinct qualities—

WHITE, LEMON, YELLOW, GOLDEN, AND VETERINARY.

PACKED IN TINS, 1, 5, 10, 14, 28, 56, and 112 lbs. Also in 3-cwt. Casks.

"Edible Salvo Petrolia"

For Public Speakers, Actors, and Singers.
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Universally adopted by the Medical Profession for
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The Chemist & Druggist

SUPPLEMENT.

Businesses Wanted
Businesses for Disposal
Premises to Let
Auction Sales

SATURDAY, JULY 15, 1893.

Partnerships
Situations Vacant
Situations Wanted
Miscellaneous

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

PLEASE NOTE.

A DVERTISEMENTS for this Supplement must be received at the Office, 42 Cannon Street, E.C., not later than 5 o'clock on Thursday Evenings, for insertion in the current week's issue.

Advertisements must be prepaid. Remittances by post may be made in stamps, or by postal order made payable to "EDWARD HALSE," and crossed MARTIN'S BANK (LIMITED). To ensure prompt attention address all communications, endorsed "Supplement," to the PUBLISHER of "THE CHEMIST AND DRUGGIST."

A COPY of this Supplement is inserted in every number issued of THE CHEMIST AND DRUGGIST. The Supplement will be sent free by early post on Friday morning to any person connected with the trade who will send in advance a stamped addressed newspaper wrapper for it, or will be given to any applicant at the Office after 9 A.M. on Fridays.

The Circulation of THE CHEMIST AND DRUGGIST largely exceeds that of any Journal in the world in connection with the trade represented.

OFFICES: 42 CANNON STREET, LONDON, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—**LONDON**.—Ready-money Retail, situate in a large business centre: returns about £1,500 yearly; very profitable; very handsome shop; good scope for an active business man; the investment of about £1,600 to £1,700 required; full particulars on application; reference will facilitate business.

2.—**LONDON, N.W.**—Light Retail and Dispensing; returns £700; very good profits; situate in a main road; shop well fitted; stock good; price £550.

3.—**LONDON, S.E.**—Dispensing and Retail, situate in a very busy locality; middle-class trade; returns £600 to £625 yearly; single-fronted shop, well stocked; good house, garden, and greenhouse; about £500 required.

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5.—**LONDON, S.W.**—Old-established Business, situate in the centre of a good-class residential locality; the returns average £600 yearly; comfortable house, with garden; rent moderate; price about £550.

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13.—**RURAL DISTRICT, SOUTH**.—Dispensing and Retail; returns £350; easily worked business; comfortable house, with garden; low rental; price £300.

14.—**WATERING-PLACE, SOUTH COAST**.—Dispensing and Retail Business; can be largely extended by personal attention; returns £750 to £800; good house; well situated for letting during the season; valuation of stock and fixtures only.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION. Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London Agent.

NOTICE.—Messrs ORRIDGE & CO. have a large number of Businesses for Sale, suitable for Gentlemen with Small Capital. Full particulars on application.

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Established 1870.

NOTICE TO VENDORS.

Having been for the past 22 years solely engaged in the Sale, Purchase, and Valuation of Chemists' Businesses, we have, as Transfer Agents and Valuers, the largest experience of any in the Trade. VENDORS placing their businesses in our hands for transfer may in all cases rely upon a speedy sale being effected without undue publicity. Terms forwarded post free on application. No sale, no charge.

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1.—**PORTSMOUTH.**—A Light Retail and Prescribing Business; returning over £600; net profit £300, after paying all expenses; well-stocked shop; rent £32, lease; good house; price £400.

2.—**ESSEX COAST.**—Unopposed Light Retail and Prescribing Business; splendid position; close to hotels and facing sea; returns £450, can be increased; low rent, good house; price £300.

3.—**MIDLANDS.**—Market town; Retail, Dispensing, and Prescribing Business; in same family 50 years; returns £600; net profit £280; low rent; good introduction given; price £550.

4.—**SUFFOLK** (on main line G. E. Railway).—Unopposed Light Retail and Prescribing Business; net profit £350, after paying all expenses; double-fronted shop, well fitted and stocked; rent £30, on lease; convenient house, with splendid garden, well stocked with fruit-trees; price about £600.

5.—**WEST OF ENGLAND.**—Retail, Dispensing, and Prescribing Business; double-fronted, well-fitted shop; heavy stock; returns £900; good house and garden; low rent; price £550, or offer.

6.—**YORKSHIRE.**—Retail and Prescribing Business in good town; returns £500, capable of considerable increase; corner shop, well fitted and stocked; low rent; price £325, or offer.

7.—**KENT COAST.**—Rising town; Light Retail, Dispensing, and Prescribing Business; returns £600, at good prices; very low rent; good house; excellent position; price £500, or offer.

8.—**DEVON.**—Light Retail, Dispensing, and Prescribing Business; returns £500, well situated in principal street; shop well fitted and stocked; good house and garden; valuation about £250.

9.—**HOME COUNTY.**—About 20 miles from London, in pretty and healthy locality; Retail, Dispensing, and Prescribing Business; returns £500 under management; low rent; good house; price £400.

10.—**LONDON, S.W.**—Busy thoroughfare; good-class Light Retail and Dispensing Business; very few patents sold; returns £1,200; net profit £400; price £900; month's trial given.

Messrs. Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

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A large selection of genuine Businesses for disposal at prices ranging from £150 to £2,000. Messrs. ANDROS & Co. recommend the following:—

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MIDLAND COUNTY.—Retail, Dispensing, and Prescribing Business; handsomely fitted; low rent; returns £600; price £250.

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For further details of these and several others apply to the Agents as above.

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Having numerous inquiries for good-class Country Businesses they invite communications from intending vendors.

NO CHARGE IS MADE UNLESS A SALE IS EFFECTED.

VALUATION ONLY.—First-class Dispensing Business, in fashionable health resort on the South Coast; splendid opportunity for a young and energetic man to acquire an excellent business upon favourable terms.

LONDON, S.E.—Good-class Family and Dispensing Business; returns £500; price £400; very handsome Pharmacy in select residential locality.

LONDON, N.—Main road; old-established cash Retail and Dispensing Business; fine bold commanding shop, beautifully fitted and well stocked; returns £1,450, very profitable; price £1,250.

YORKSHIRE.—An excellent Family and Dispensing Business; returns £1,250; price £1,100, or valuation terms can be arranged.

NORTH BRITAIN.—First-class Retail and Dispensing Business, returning under manager £1,150; net profit £500; price £1,000; pleasantly situated in main street of fashionable city.

CHESHIRE.—Old-established cash Retail and Dispensing Business; nicely fitted and heavily stocked; rent £55; returns £1,050; price £800, or valuation; highly recommended.

LONDON, N.—Old-established Business, with valuable Proprietaries stocked by the trade; returns £700; net profit £300; price £650.

DEATH VACANCY.

The Executors of the late Charles Elsey, High Street, Maldon, Essex have instructed us to offer for Sale by Valuation (without premium for goodwill), the Stock-in-trade, Fixtures, and effects of the old-established Business, which has been carried on for 30 years by the late proprietor; the shop stands in a most commanding position in the centre of the town; the returns are about £700 a year, and may be considerably increased by attention; the house is large and most conveniently arranged; splendid garden, well stocked with flowers and fruit-trees. Orders to view and full particulars sent upon receipt of application.

THOMAS TOMLINSON & SON, Chemists' Valuers, 9 New Cannon Street, Manchester, have for disposal that old-fashioned profitable Business (established 26 years) of Mr. Stephen Stevenson, Smallbridge, outside Rochdale; returns £500; owner retiring; sure to make money.

THOMAS TOMLINSON & SON, Transfer Agents, 9 New Cannon Street, Manchester, have for disposal an old-established genuine Retail and Photographic concern at Huddersfield; returns £1,270; price about £1,000; net profit quite £300 a year; will find reasons for disposal quite satisfactory.

MESSRS. THOMAS TOMLINSON & SON, Chemists' Fire Assessors, 9 New Cannon Street, Manchester, have for disposal, under special circumstances, at Highfield, Sheffield, a Business with good residence, returning £7 a week; were £12 previous to illness of late owner; very profitable; no patents; which must be sold at once, present owner having entered into partnership with his late employer in another town; may be had, a bargain, about £150.

THOMAS TOMLINSON & SON, Consulting Chemists' Agents, 9 New Cannon Street, Manchester, have also Businesses for disposal in Manchester suburb, about £120; Farsley, £180; two in St. Helens; two in Horwich; another in Sheffield, Stockport, Ripon, Preston; three in Manchester, Hollinwood; one in Blackburn, very cheap rent and good roomy premises; Bradford, Derby, Liverpool, Broad Green, Hyde, Middleton, Warrington, and several others at valuation. No charge to ingoers or consultants.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CHEMIST and Drug Stores; exceptional opportunity; much required in neighbourhood; main road. 77 Purrel Road, Plumstead.

GOOD-CLASS Family Retail; could be doubled by anyone with capital, willing to commence cutting; returns nearly £1,100; price £1,000, or offer. "Bonnum," c/o J. Granville, 1 Crayford Road, Holloway, N.

IMPORTANT Watering-place.—Light Cash Retail; corner position; busy thoroughfare; returns £750; good house; private entrance; price £650. Address, by letter, "Ozone," c/o Crossley, Moir & Co., Advertising Agents, 57A Coleman Street, E.C.

NORTH.—£1,400; returns increasing; very few patents; several valuable specialities; capable of great extension under personal supervision; price about £900. Address, "Excelsior," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£300 or valuation.—Old-established Mixed Business, in good market town in Lincolnshire; in present proprietor's hands 26 years; shop, with plate-glass front, and 7-roomed house; rent £20. Apply, W., Emery House, Boston, Lincolnshire.

SITUATIONS OPEN—Cont.

ASSISTANT (Minor qualification), for a good-class Dispensing business. Apply, by letter, stating age, experience, references, and salary required, to Kemp, 10 Bedford Terrace, Kensington.

WANTED, immediately, a qualified Assistant; one with knowledge of Agricultural trade preferred: good references. Apply, in first instance by letter, W. J. E., 39 High Street, Islington, N., London.

GOOD Junior, for light business; must be neat and accurate in his work, and have thoroughly satisfactory references. Apply, stating age, height, salary, and references, to John Laurie, Chemist, Blackpool.

ASSISTANT, about 25, qualified, of good appearance, and with experience in good-class Retail. Apply, stating age, height, references, and salary required (indoors or outdoors), J. Williamson, 144 Church Road, Hove, Brighton.

WANTED, mid-August, Minor Student, in a small Retail, S.W. district; hours 8.30 to 6.30, one evening a week till 9.30; alternate. Sunday evenings 7 to 9; comfortable home in Doctor's house adjacent. Apply, stating particulars, 251/26, Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

AN Assistant (single); pushing Counterman. State terms (indoors), age, height, with whom last and how long; if photo sent, will return; or personal application preferred, between 12 and 2 or 5 and 6, at Morris, Chemist, 23 West Green Road, Tottenham, London, N., close to Seven Sisters, Great Eastern Station.

WANTED, qualified Manager, about 25, for Mixed Branch; must have knowledge of paints, oils, and colours, and be reliable, energetic, obliging, and a good Prescriber; good references indispensable; state age, height, experience, salary required (outdoors), and all particulars in first letter. A Middleton, Chemist, Nottingham.

WANTED, an Assistant, indoors, about 24, of good address, accustomed to good-class Dispensing and Retail; 2 kept. Apply, with full particulars of previous engagements, and salary required, &c., enclose photo (to be returned); personal interview preferred. Apply to Foster Blades, 10 Gloucester Road, South Kensington, S.W.

IMMEDIATELY: an energetic and gentlemanly Junior Assistant; outdoors; unqualified or qualified; aged about 22 years; Light Retail, Dispensing, and pushing business; must be quick and able to take charge at the front counter occasionally, and also assist at the Branch business. Apply, stating salary required, &c., Coverdale, Chemist, York.

A QUALIFIED Assistant, for business a few miles from London; aged about 30; must be steady and a good worker and packer, with undeniable references. Apply, with full particulars, stating age, experience, salary expected, outdoors, sleeping accommodation provided, to "Sulphur," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TAUNTON AND SOMERSET HOSPITAL.

QUALIFIED Dispenser wanted; salary £80, with annual advance of £10 up to £100. The Dispenser will be required to give his whole time, and to take over an apprentice.

Applications and testimonials to be sent on or before 25th instant to the undersigned,

J. H. BIDDULPH PINCHARD,
Dated, 13 Hammet Street, Taunton, Secretary.
July 12, 1893.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

C. LEAR; Locum-tenens; qualified. 13 Air Street, Regent Street, W.

AS Junior; Wholesale or Retail; aged 23. A. P., 33 Castle Street, Salisbury.

LOCUM-TENENS; qualified; disengaged July 22. Doble, 335 City Road, E.C.

ASSISTANT or Branch Manager; qualified; 25. J. J., 196 Belsize Road, N.W.

LOCUM; disengaged till October. Particulars, Mitchell, Brookfield House, Hyde.

ASSISTANT; aged 24; height 5 ft. 6 in. R., 107 Paget Street, Loughborough.

JUNIOR; 4 years' good experience; reliable references. Evans, 66 Oxford Street, W.

LOCUM-TENENS; qualified; disengaged. "Chemist," 22 Fordingley Road, Paddington.

JUNIOR; 20; good Dispensing ability; highest references. "Statin," 42 Church Road, Newport.

DISPENSER, &c., to Surgeons; married. J., 4 Ward's Cottages, Beechcroft Road, Leytonstone.

JUNIOR; good experience; disengaged; London preferred. G. L., 65 Union Road, Clapham, S.W.

MANAGER, by day, week, or month; disengaged; qualified. A. B., 69 Adolphus Street, New Cross, S.E.

QUALIFIED Assistant (23) wishes outdoor situation. G. E., c/o Forster, Chemist, Musselburgh, N.B.

JUNIOR; reference excellent. Apply, "Med.," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR; good experience; tall; disengaged. "Statin," 34 Northway Road, Loughborough Junction, S.E.

AS Locum-tenens or permanency; unqualified; disengaged. "Statin," 141 New Lane, Patricroft, Manchester.

ASSISTANT; 27; outdoors; unqualified; first-class experience. "Chemicus," 80 Queen's Road, Hastings.

MANAGER, Assistant, or Dispenser; aged 37; long experience; Extractor. "Alpha," Tony Terrace, Llandilo.

WANTED, situation in a Drug-house, or Dispensership; salary no object. Address, "Medicus," Pant Glus, Mold.

MANAGER; permanency; excellent references, town and country; married; disengaged. "Beta," 41 Hornsey Rise, N.

QUALIFIED; as Manager or Senior; aged 50; reference; permanency desired. G., 17 Shallow's Street, Folkestone.

ASSISTANT; good Prescriber, Extractor, or Dispenser to Surgeon; able to visit occasionally. Smith, 134 Deane Road, Bolton.

LOCUM-TENENS; disengaged July 18th; good Prescriber; 5s. day and 3rd-class fares. "Chemist," 25 Stansted Road, Southsea.

IMPROVER; 24; 4 years' experience; abstainer; good reference; small salary. "Alpha," c/o Mr. Portlock, Wotton-under-Edge.

AS Assistant, Manager of a Branch, or Locum-tenens; aged 46; height 5 ft. 9 in. Address, "Chemist," 46 Porchester Road, Bayswater.

WHOLESALE; Wets, Drys, or Laboratory; long experience in Retail and Wholesale. T. A., 17 Plum Street, Seaforth, Laues.

DISPENSING Assistant to Surgeon; Locum or permanent; well experienced. "Seuega," 10 Nunhead Crescent, Peckham Rye, S.E.

MANAGER or Senior; aged 35; 20 years' experience; married; qualified; good references. D., 172 South View Road, Sheffield.

ASSISTANT; aged 25; time for study; West-end experience; outdoors preferred. "Chloralamid," 25 Keppel Street, Russell Square.

WHOLESALE and Manufacturing; as Manager or otherwise; experienced; first-class references. "Magnesium," 362 City Road, London.

AS temporary Assistant during August; in or near London; qualified. 249/24, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; 23; 6 ft.; outdoors; first-class experience; front counterman, &c.; used to Stores. "Radix," 31 West Street, Brighton.

PART-TIME, for board, &c.; studying for Minor; from August; capable. 249/33, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Manager (qualified), for Dispensing business; good Prescriber and Extractor. 40. "Cuprum," 31 Margaret Street, Clowes Street, Manchester.

LOCUM-TENENS; qualified; disengaged; well up Dentistry; town or country; aged 35; good address. 4 Cressington Road, Stoke Newington.

ASSISTANT, or Manager; qualified; outdoors; good reference; Prescribe and Extract. W., 326 Balham High Road, Upper Tooting, S.W.

MANAGER or Assistant; Minor; good references; outdoors; disengaged. Apply, "Geutian," 1 Stratford Avenue, Camp Hill, Birmingham.

ASSISTANT; 24; experienced; brisk Cash business preferred; London or centre; unqualified; disengaged July 25. A. A., 176 Cowbridge Road, Cardiff.

SURGEON'S Dispenser and Bookkeeper; 23; abstainer; 7 years' good experience; shorthand; references. "Camphor," 70 Queen Street, Eekington, Derbyshire.

TRAVELLER; Patents, Sundries; 20 years' North, Midlands, Wales; moderate salary. "Patents," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SALES BY AUCTION.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO CHEMISTS, DRUGGISTS, SHOP-FITTERS, & OTHERS
79 CLARENCE ROAD, LOWER CLAYTON, N.E.

MR. EDWIN A. YOUNG has received instructions from the executors of the late Mr. George Haycock, M.R.C.S., L.S.A., to offer for sale, by Auction on the premises as above, on Wednesday, July 19, 1893, at 1 for 2 P.M. precisely, the Household Furniture and Effects; also the Stock, Fixtures, and Goodwill of a Surgeon and Chemist, lately carried on by the deceased at the above address. On view day previous and morning of sale. Catalogues of the Auctioneer, 150 Curtain Road, E.C.

N.B.—The Stock, Fixtures, and Goodwill will be offered in one lot, and, if unsold, the whole will then be offered in lots as per catalogue.

SITUATIONS OPEN

3s. 6d. for fifty words; 6d. for every 10 words beyond

WANTED, immediately, qualified Assistant. State salary and particulars, Theekston, New Brighton.

ASSISTANT, holding Dental qualification; salary (out-of-doors) £2 weekly. Griffith, Chemist, Chichester.

QUALIFIED man wanted. State age, references (two last), salary required, to Jno. V. Webster, West Bromwich.

TRUSTWORTHY Locum-tenens (qualified) required, August 3 to 12. Terms and references to Watts, Chemist, Bodminster, Bristol.

WANTED, Junior Assistant. Apply, personally or by letter, stating usual particulars, "Chemist," 804 High Road, Tottenham, N.

JUNIOR; Light Retail Dispensing business; knowledge of Homoeopathy preferred. Apply, with usual particulars, J. Tirrell, Hanley.

AN Assistant, of good experience, for good Family and Dispensing business. State age, height, experience, salary, &c., Hineks, Chester.

AT once, an Assistant, for a high-class Seaside business. Apply, stating usual particulars and enclosing photograph, to Frederick March, Westgate-on-Sea.

WANTED, in a Drug and Grocery business, an Assistant, to take charge of the Drug department. Apply, stating age, salary, and references, H. Lunn, Horncastle.

WANTED, Junior, for Light Retail Dispensing business in the Midlands. Apply, stating age, height, and photo, W., 71 Tollington Park, Holloway, London, N.

A GOOD Junior Assistant, about 22 years of age, required, at once. Apply, stating full particulars, references, &c., to Tunbridge & Wright, 84 Broad Street, Reading.

WANTED, a Junior Assistant, for Dispensing and Light Retail. State age, height, experience, salary (indoors), and enclose carte to Mrs. Purnell, 337 High Street, Cheltenham.

WANTED, Assistant; married; no Sunday duty; abstainer preferred. Apply, with usual particulars, "999," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, an Improver for the Drug counter; aged about 18; indoors; state height, salary, with references and photo. Tribe & Lamb, Chemists, High Street, Chatham.

WANTED, at once, qualified Assistant in Mixed trade; must be steady, and obliging to customers; indoors. State lowest salary at once, A. Cox, 65 Broad Street, Blaenavon, Mon.

WANTED, by 1st August, a competent Assistant, for a Country business; must be steady and willing to make himself useful. West Street Post Office, Horsham, Sussex.

JUNIOR Assistant, in good-class Dispensing business, by end of July. Apply, stating age, height, salary required, and photo, Frost & Harrison, 3 Eltham Road, Blackheath, S.E.

WANTED, Assistant; outdoors; qualified; aged about 28. Enclose reference and carte, stating salary, to "Xema," c/o Messrs. Evans, Sons & Co., 56 Hanover Street, Liverpool.

QUALIFIED Assistant; outdoors; unmarried, and not more than 25. References, age, height, photo, salary required, and all particulars of experience, &c., to Mr. Garnett, Windermere.

WANTED, good and reliable Assistant, must be well up to Counter-work, for a few months. State age, terms, &c., enclose photo, Martin, Pharmaceutical Chemist, Southampton.

JUNIOR.—Wanted, a quick and obliging Assistant; about 21; 5 kept; close early on Thursdays. Applicants please state full particulars, and enclose photo (to be returned), to C. Bayley, Chemist, Walsall.

QUALIFIED Assistant wanted, aged about 22 or 23 years; also Junior or Improver. Apply, stating height and salary required (indoors), and enclose photo, to Jeans, Chemist, Moss Lane West, Manchester.

IMPROVER wanted, immediately, where 2 are kept, in good-class Dispensing and Retail business. Send full particulars, salary required (enclosing photo), Fincher Brookes, Chemist, Claring Cross, Birkenhead.

INVOICE Clerk wanted; must have had experience in the Drug and Patent Medicine trade. State age, salary required, and references to 17/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, qualified Assistant, not over 30; also Junior about 20. Apply, stating age, height, experience, reference, and salary required, enclosing photo, to J. & J. Thompson & Co. (Lim.), 192 Manchester Street, Oldham.

MANAGER, for Branch; qualified; married preferred; good house and neighbourhood. Apply personally, or send carte with full particulars and salary required, to W. Sharman, 247 Mare Street, Hackney, N.E.

QUALIFIED Assistant wanted, at once; outdoors; must be steady, sober, and not afraid of work; references unexceptionable; salary 35s. Apply, personally or by letter, Garman Brothers, 278 Roman Road, London, E.

COMPETENT Assistant, accustomed to a Mixed business; also a Junior or Improver. Apply, with full particulars, stating salary required (indoors) and enclosing photo, to Arthur Carlton, Chemist, Peterborough.

A GENTLEMANLY and obliging Junior wanted, by the end of July, for good-class Country Retail and Dispensing. Apply, stating age, height, salary required, to "Omega," c/o A. S. Hill & Son, Southwark Street, London.

WANTED, an Assistant, of good address and experience, for a Cash business; indoors; 4 kept; the usual early evening cash week, and half a holiday every month. Full particulars to Blackham, 675 Holloway Road, Upper Holloway, N.

CHEMIST and Postal Assistants.—One who thoroughly understands Postal duties, and competent to take sole charge when required, whose character will bear the strictest investigation. J. Gater, Chemist, P.O., Victoria Road, Peckham, S.E.

JUNIOR wanted, who has just completed his apprenticeship; accustomed to the general routine of a Mixed Country business; no oils, colours, or heavy work; comfortable home. Apply, enclosing photo, to "Chemist," Market Place, Reepham, Norfolk.

QUALIFIED Assistant wanted, single (indoors), for brisk Mixed Country business. State age, salary required, experience, and enclose photo (to be returned). Address, "Manchester," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, by a first-class Chemist, an Assistant; must be expert Salesman, competent Prescriber, and of good address, with knowledge of French preferred. For particulars write, enclosing photo (will be returned), to D., 29 Balfour Road, Highbury, N.

WANTED, immediately, trustworthy, qualified Assistant, to manage a Mixed Country business for a few months; hours easy; no Sunday duty; half-holiday weekly. Apply, stating references, experience, age, and salary required (indoors), to W. H. Cole, Congleton.

WANTED, Junior requiring time for reading, to assist in a brisk East-end Retail; or a qualified man to take charge, with a view to partnership or succession; small capital required; has been neglected and is capable of considerable extension. K. S., 64 Ramsay Road, Forest Gate, E.

COMPETENT, energetic Assistant, of good address and Store experience; must be well recommended and of agreeable manners; capable of charge of a small brisk Cash Retail; board and lodging provided; salary £50; evening weekly. Pearson, Dentist, Caroline Street, Cardiff.

WANTED, qualified Assistant, as Manager for Chemist's widow in Light Retail business; must be first-class Dispenser and Prescriber; hours 8 to 8.30. Apply, with full particulars, enclosing photo and references, with salary required (indoors), to Mrs. Dolman, Cheltenham.

DISPENSER wanted; qualified; for Bangor Provident Dispensary; duties to commence in October next; knowledge of Welsh desirable, and preference will be given to a married man; salary £52 per annum, with house (unfurnished), coal, and gas. Apply to H. O. Hughes, 53 Garth Road, Bangor, N. Wales.

WANTED, immediately, a Junior Assistant; must be a neat and reliable Dispenser, good penman, steady, and of obliging manners, and whose character will bear full investigation indispensable. To save time, state detailed particulars (personal interview preferred), E. Hughes 5 Goldhawk Road, W.

BUSINESSES FOR DISPOSAL—Cont.

MAIN Road position, London, S.W.—Returns £615; Dispensing (chiefly) and Light Retail; small, comfortable house; rent moderate; very suitable for young man; to an immediate cash purchaser, very easy terms. Write, "Aloes," 55 College Street, Chelsea, S.W.

HULL.—Consequent upon death.—Old-established Retail and Dispensing Business in busiest thoroughfare; only Homoeopathic Pharmacy in Hull; Dispensary on premises; good house, part let off to Dispensary. For full particulars apply, R. Davis, Solicitor, 16 Scale Lane, Hull.

GLOUCESTERSHIRE (large town).—First-class Light Retail and Dispensing Business, returns nearly £2,000 per annum, for sale, through illness; price £1,000 cash. Further details on application to "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

READY-MONEY Business in a mining district in Yorkshire; returns approaching £400; might be much increased by a good Prescriber; house and shop; rent £19, free of rates; stock and fixtures at valuation; about £120. Apply, "Magnesia," c/o Hirst, Brooke & Co., Leeds.

FOR immediate disposal, genuine old-established Light Retail and Dispensing Business, in increasing town in Midlands; returns, under Assistant, between £500 and £600; good profits; capable of great extension; satisfactory reasons for disposal. Apply, "Beta," c/o Wyleys (Limited), Coventry.

ESSEX.—Death vacancy; Genuine Chemist's and Druggist's Business; old established; returns £700; Mixed Retail, Dispensing, and Prescribing; good position; splendid opening for a good Prescriber; stock and fixtures at valuation; no reasonable offer refused. Apply, J. Myddelton, Gainsborough.

KENT.—In a growing locality.—An unopposed Light Retail, Dispensing, and Prescribing Business, returning about £500, at very good profits; small, but convenient, house and nice garden, with good cellars; rent only £21, on lease; water-rate free; offers wanted; about £450 required. "Chemist," Crayford.

NOTTINGHAM.—£650 or valuation.—An excellent old-established Chemist's and Druggist's Business for sale, in a central position, chiefly Dispensing and Light Retail, at good prices; owner retiring; books can be seen, and every information given, on application to Mr. Martin Langley, 9 Middle Pavement, Nottingham.

£70.—S.E.; Branch Business; unopposed, and under management; returns are £5 weekly, principal did £12; thickly-populated locality; shop well fitted and stocked; excellent position; rent £23, shop and 5 rooms; fortune to good Prescriber. "Branch," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

POPULAR Seaside Resort; owner retiring; £150 cash to immediate purchaser; rent £18; working stock; suit energetic young man, who would more than double returns; no tea, tobacco, paints, or cutting; a *bona-fide* Drug Trade capable of much extension. Address, "Senex," 24 Regent Road, West End, Morecambe, Lancashire.

£400 (part can remain at 4 per cent.).—Dispensing and Light Retail; situate in principal thoroughfare of fashionable South-coast town; capital chance for a smart business man; 1,500 new prescriptions dispensed last year under management; opening for Dentistry; extractions now nearly pay rent. B., c/o Wells, Castle Road, Hastings.

DRUG and good Prescribing Business in prosperous district of about 20,000; no opposition near; large town; excellent position for Dentist and Chemist, or Herbalist; more than a paying business to be done with small capital to go into sundries; rent £25; price, including heavy furniture, £200. "Bona-fide," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

THROUGH ill-health; a Light Cash Retail with considerable Prescribing Trade; returns £750 with an upward tendency; rent low on long lease; Dentistry could be added; every investigation allowed; convenient house, with private entrance; only those with cash need apply; price £650. "Eastern Counties," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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IN the West Riding of Yorkshire, on sale, an old-established Mixed Country Business of over 40 years' standing, in a good and prosperous manufacturing and farming district; in the hands of the present proprietor for 15 years; one with a knowledge of Dentistry would find it a good opportunity; good and satisfactory reasons for giving up business; no opposition; price about £200. Apply, Wm. Clapham, Crosshills, *via* Keighley.

EXCEPTIONAL opportunity; returns £1,100; best position of pleasant market town; excellent opening for General Stores; also good opening for Dental or Veterinary Surgeon or Medical man; stock and fixtures can be reduced to £500, to be sold together with the very commodious and convenient freehold premises; references required. "Instantan," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CHEMIST and Druggist's; old-established, well fitted, with good stock and capable of much improvement; to a purchaser at once, will take £65 for all as it stands. Apply, Morton Bell, 15 High Street, Wood Green.

CHEMIST'S and Prescribing Business for Sale under exceptional circumstances; net average profits exceed £400 per annum; price all at, including a valuable stock and lease, £500; open to a reasonable offer, as the business must be sold immediately. Tringmar & Wilsdon, 96 Queen's Road, Brighton.

CHEMIST and Veterinary Practice.—To be disposed of, in consequence of death of late owner, a genuine Mixed Country Business, with splendid outdoor Veterinary connection; situated in the midst of thriving agricultural district; a splendid opportunity for an energetic man. Apply, in first instance, W. J. E., 39 High Street, Islington, London, N.

CASH, £250.—Genuine old-established Business in densely-populated part of N.E. of London (main road), including fixtures, fittings, stock, and household furniture, &c.; excellent house, with side entrance and every convenience; rent £35 per annum; taxes low; very little opposition; closed for 8 months through fire; only re-opened 2 months, and receipts are £250 under management; increasing weekly; large profits; every investigation and, if desired, trial allowed; owner leaving London. Appointment or further particulars, apply Heastman, Old Town Hall, Hackney, London.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a first-class Dispensing Business, returning from £1,500 to £2,000; look-up, or with a good house attached. 77/51, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Light Retail, Prescribing, and Dispensing Business, with good house, returning £800 to £1,000; good country or provincial town preferred; advertiser prepared with the cash; particulars received in confidence. W. S. H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIPS.

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WHOLESALE Chemist.—Excellent opening in old-established Manufacturing firm for energetic man with good knowledge of the business; moderate capital and references required; principals only. Apply, stating particulars, to Y. Z., c/o Messrs. Reynell & Son, Advertisement Offices, 44 Chancery Lane, W.C.

WANTED, by an energetic, first-class business man, aged 30, with moderate capital, a Partnership in a good, well-established business; advertiser has had good town and country experience, both as manager and principal, and can give references of the highest nature. "Nonconformist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO LET.

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WORCESTER.—Centrally situated Chemist's shop and premises to be Let; been in present occupier's hands upwards of 35 years; rent £18. Apply, Mr. Pike, Auctioneer, Worcester.

RAMSEY (Isle of Man).—To Let, shop, with part Chemist's Fittings, in principal part of the principal street, occupied by a chemist the past 6 years; no qualification necessary in the Isle of Man. Apply to R. Corkhill, Builder, Ramsey.

TO Chemists.—Modern, attractive plate-glass fronted shop, with good dwelling-house; busy thoroughfare between railway stations; best part of Tunbridge Wells; premises many years occupied by a Chemist; no opposition near; unusual opportunity; low rent; lease and fittings a bargain. Wickenden, 20 High Street, Tunbridge Wells.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

APPRENTICE.—James Stevens, Chemist and Druggist, 19 High Street, Strood, near Rochester, has a vacancy for an Apprentice; comfortable home; moderate premium.

APPRENTICE wanted, in Light Retail and Dispensing business; short hours and no heavy work; time allowed for recreation, and help with studies; moderate premium. J. H. Chantry, Chemist, Southboro', Tunbridge Wells.

A YOUNG man as Apprentice wanted, immediately, in a good-class Family and Agricultural business; a very moderate premium accepted to fill vacancy at once (indoors). Apply to T. E. B. Blankley, Dispensing Chemist (by Exam.), Market Place, Brigg.

SITUATIONS WANTED—Cont.

MANAGER or Locum; aged 37; disengaged; experienced. O., 70 Myddelton Square, E.C.

WHOLESALE.—Invoice or General Clerk; experienced. A. F., 48 Penton Street, Pentonville, N.

LOCUM-TENENS; 24; disengaged in a fortnight; good references. Slinu, 116 Abbey Street, Nuneaton.

JUNIOR; 24; town or country; used to brisk Cash business; good Dispenser. "Radix," 113 Dawes Road, Fulham.

ASSISTANT; disengaged; aged 28; height 5 ft. 9 in.; knowledge French and Photography. C., Belle Vue, Forest Hill, S.E.

MANAGER or Assistant; temporary or permanent; 6 years last situation. "Chemicus," 10 William Street, Old Kent Road, S.E.

A QUALIFIED Chemist takes Temporary Management; free after 25th; good references. "Chemist," 17 Vicarage Crescent, Margate.

DISPENSER to Surgeon; 10 years in last situation; well recommended; married, no children. Manthorp, Gordon Road, Strood, Kent.

EMPLOYMENT wanted, for one or two evenings a week; qualified; good Dispenser. 253/31, Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; Western counties preferred; highest references; 8 years' experience; time for study required. Apply, H. Lane, Northend, Henley-on-Thames.

MANAGER, Assistant, or Locum-tenens; qualified; outdoors; married; aged 37; town or country; experienced. "Minor," 129 Wandsworth Road, S.W.

ASSISTANT; town preferred; good-class London Dispensing experience; aged 23; height 5 ft. 9 in.; indoors; moderate salary. J. M., 106 High Street, Putney, S.W.

ASSISTANT; 11 years' all-round experience; unqualified; excellent references; moderate salary. 251/22, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS; unqualified; long experience; 8½ years in last situation; good Extractor. F. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WHOLESALE.—Young man (23) seeks engagement; abstainer; references; permanency. "Boracis," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A. E. GUNNELL, late Manager to Arthur Sangster, South Hampstead, is open to undertake Locum-tenens during August. Apply, 12 College Crescent, South Hampstead.

TRAVELLER, calling upon Chemists in Lancashire and Cheshire, open to accept Agencies. Address, 245/32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MAJOR; Manager or Senior; outdoors; married; abstainer; first-class London experience; aged 28; disengaged August 1; good references. John Evans, Chemist, Mumbles.

DISPENSER and Bookkeeper to Medical Man; married; experienced; permanency; London or South preferred. "Fides," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT, 15 years' Retail experience, knowledge of French and Photography, desires Clerkship or position where qualification is unnecessary. D., 23 Wordsworth Street, Hove, Brighton.

TRAVELLER; Drug, Drysaltery; 15 years' experience. North, Midlands, South Wales, West England; first-class salesman. "Colston," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ADVERTISER seeks a situation in small Wholesale Chemist or in Perfumery Department; aged 26; abstainer. Apply, A. Bishop, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR or Improver (indoors); situation wanted for gentlemanly youth; height 5 ft. 9 in.; 2 years' experience; passed Prelim.; small salary first 6 months. Address, E. Marriott & Co., Hastings.

GENERAL or Locum; unqualified; aged 42; total abstainer; varied experience; in or out doors; moderate salary; good references; country preferred. Collis, 1 Pickering Street, Hulme, Manchester.

WANTED, situation, by a young man (19), who has had 5 years' experience as Paeker, &c., in several large London Chemists' Warehouses; good references. Address, A. G. T., 31 Hewlett Road, North Bow.

ENGAGEMENT wanted by qualified Chemist, aged 35, who has had extensive experience in opening and Managing large Store businesses. W. O. L., Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

MANAGER; Major; 47; unmarried; outdoors or furnished room; many years in business on own account; South or South-West of England preferred "Solus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Managership, to live on the premises; married; good Counterman, Prescriber, and Tooth-extractor; aged 29; good appearance and address; excellent references. Apply, "Franks," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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£20 Cash Prizes offered to Retailers of Ivorine Toilet Specialities; goods on sale or return terms. Apply, Bailey's Toilet Company, Bedford.

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	Per gross.	Extra quality.		Per gross.	Extra quality.
1d. Sample Bottles, dozen parcels	5/3	6/3	1/2 Bottles, flat or round, reputed half-pints ..	16/-	26/-
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Square Glass Stoppered Bottles, containing nearly 1/2-pint Imperial, 42/- per gross. Sample Bottles at 7/- per gross.

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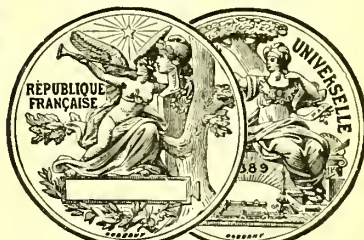


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This Purely Botanic Extract is composed of the Best English Herbs, including Hops, Dandelion, Horehound, and Gentian.

As a Dinner or Supper Beverage it is unequalled.
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SOLD ONLY IN BRASS BOXES, at 4/- per dozen.
THE FINEST BREATH PERFUME IN THE WORLD.
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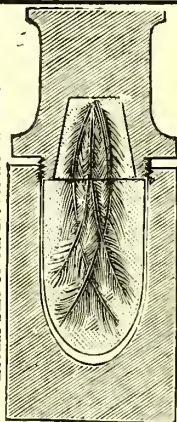
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SIXPENNY and SHILLING Sizes, at 3/6 and 7/- per doz.
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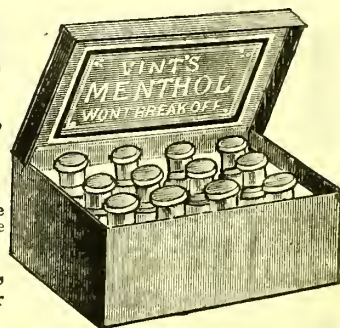
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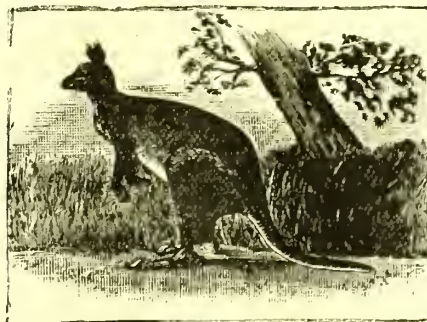
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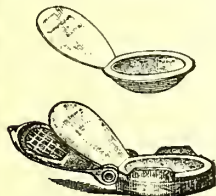
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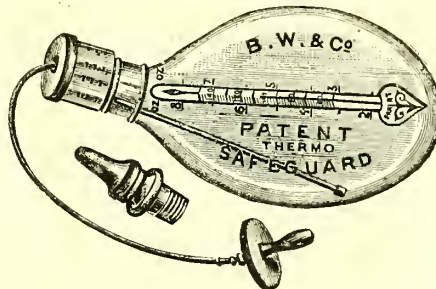
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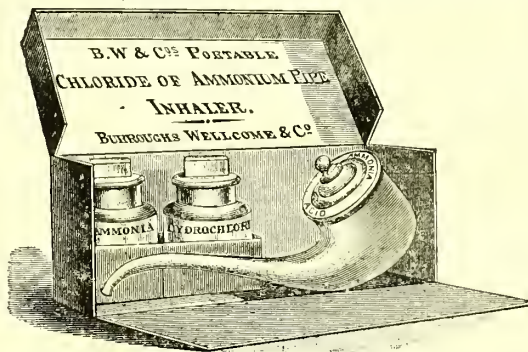
approved shape, and has no angles in which the milk can coagulate. It has the further advantage (since the bottle is marked in ounces) of giving a register of the exact amount of food taken at each feeding, and thus tends to avert the evil of over-feeding.

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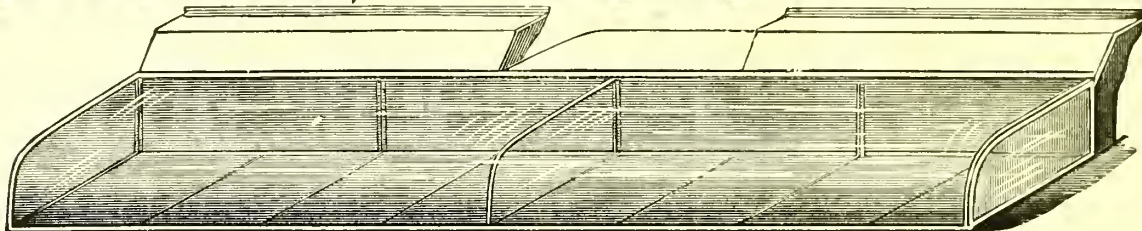
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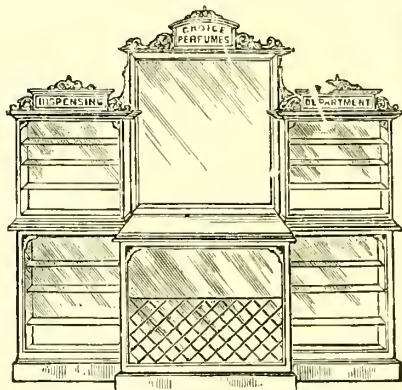
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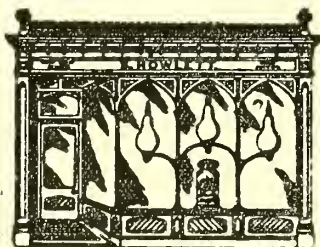
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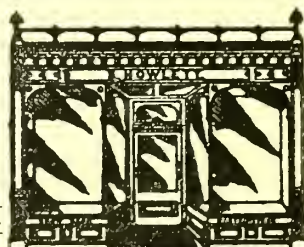


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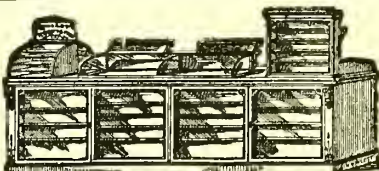
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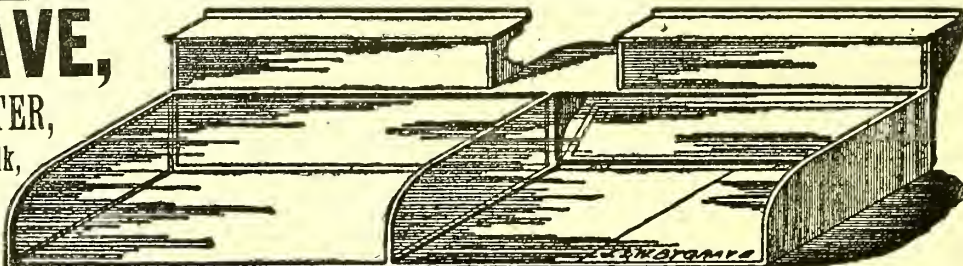
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“LANOLINE” AS AN OINTMENT BASE,

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never turns rancid;

admits of the admixture of any quantity of water;

confers stability and permanence on ointments prepared with it.

UNGVENTUM LANOLINI

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UNGT. LANOLINI is non-sticky.

TOILET “LANOLINE.”

A SUPERIOR PREPARATION FOR THE SKIN.

IN TUBES CONVENIENT FOR USE IN

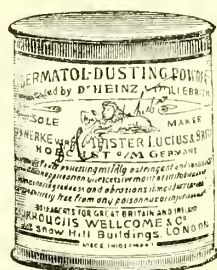
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AS AN OFFICIAL JOURNAL

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—PHARMACEUTICAL SOCIETY OF IRELAND, SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION, MIDLAND PHARMACEUTICAL ASSOCIATION OF NEW ZEALAND, CENTRAL ASSOCIATION OF NEW ZEALAND, OTAGO PHARMACEUTICAL ASSOCIATION, PHARMACEUTICAL SOCIETY OF QUEENSLAND, PHARMACEUTICAL SOCIETY OF SOUTH AUSTRALIA, PHARMACEUTICAL SOCIETY OF WESTERN AUSTRALIA, and TASMANIAN PHARMACEUTICAL SOCIETY.

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OUR SUMMER ISSUE.

WHOLESALE and manufacturing firms who may wish to bring themselves and their products before the best constituency of chemists and druggists at home and in the colonies are requested to note the opportunity which will be provided in our Summer Issue on July 29. For insertion in that issue we are prepared to receive specially printed insets the same size as THE CHEMIST AND DRUGGIST pages, and we shall distribute the issue to 11,000 of the best houses and buyers in the English-speaking drug trade. The publisher will be glad to furnish particulars to any who wish further information regarding the Summer Issue.

The publisher is now on the eve of completing his arrangements for sending his portion of the issue to press, and we strongly urge upon all, who would regret being left out of it on this occasion, to communicate with him at once in regard to space or the insertion of circulars.

Summary.

IN our Bankruptcy column we report a number of public examinations of chemists and others.

OUR Paris correspondent contributes more pharmaceutical experiences of the recent riots in the French capital.

THE Institute of Chemistry have contracted for the creation of a 2,000-guinea laboratory on their premises in Bloomsbury Square.

IN our continued report of the World's Fair particulars are given of the approaching pharmaceutical congresses and further notes on British exhibits.

WE print the questions given in the British Pharmaceutical Preliminary examination this week, also the papers given at the Irish Preliminary and Licence examinations.

THE students who engaged in our last analytical competition had most interesting mixture to test, and in his report on the results Mr. Moss deals with the chief reaction involved in the analysis.

The drug-markets still continue to present an aspect of unusual quietness; the unsettled condition of the silver market, and the general feeling of unrest in business, largely contribute to this.

MR. JOSEPH SIDNEY LESCHER, one of the oldest wholesale druggists in the country, and a founder of the Pharmaceutical Society, whose death we announced last week, is the subject of an article in this issue.

A COMMISSION appointed by the *Lancet* has re-investigated the question of deaths under chloroform anesthesia, and practically disputes the correctness of Dr. Lauder Brunton's results. Upon this matter we comment editorially.

FIVE cases of poisoning by carbolic acid are recorded this week. At a Coventry inquest the Coroner expressed the hope that when the Legislature should have time to deal with practical matters, the sale of this dangerous article would be attended to.

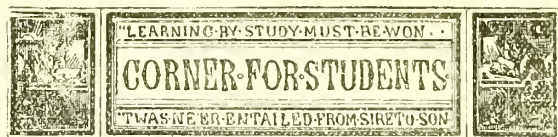
PROFESSOR ATTFIELD has reported to the Drug Club on the ipecacuanha root and stem question. He is not in favour of the use of the stem for official ipecacuanha preparations, but in a measure supports Mr. Cripps's conclusion that it contains about two-thirds as much "emetine" as the root.

THE Society of Chemical Industry has held its annual meeting at Liverpool this week. A satisfactory report was presented by the Council. Sir John Evans, K.C.B., the President, delivered an address in the course of which he dwelt upon the progress made in chemical science and technology during the last fifty years. The Society will meet in Edinburgh next year.

AT Glasgow a grocer has been summoned, under the Sale of Food and Drugs Act, for giving "distilled malt vinegar" when malt vinegar was asked for. Expert evidence was called; it was shown that brown vinegar is not popular, and that the vinegar sold was what it purported to be. In the result the Magistrate dismissed the case. The British Pharmacopoeia did not come in at all.

MR. JUSTICE WRIGHT has given judgment in favour of the plaintiff in the case of *Alabone v. Morton*, which recently came before him, and which he had delayed for the purpose of an inquiry into the genuineness of the testimonials and Press notices in favour of an alleged consumption-cure. The testimonials turned out to be genuine, and the claim in regard to the Press notices was withdrawn, but the Judge intimated that his suspicions as to these had been generally confirmed.

THE business discussed by the Irish Pharmaceutical Council, and reported this week, was chiefly of personal interest. An important question, however, was raised by Mr. Turkington, who urged that the widows of chemists and druggists ought to have the same privilege which the widows of pharmaceutical chemists possess of carrying on the business of their deceased husbands. The question is to be referred to the legal adviser of the Council. We comment on it in an Editorial Note.



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will again form the subject of the exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Wednesday, July 19, and the samples will be forwarded immediately. It should be understood that in this, as in all other competitions, THE CHEMIST AND DRUGGIST recognises no distinction of sex.

Students' reports will be received up to Saturday, July 29. Each report should contain a concise account of the work done, and should include a list of the constituents detected; in this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts of which the mixture is composed.

REPORTS.

The powder sent to correspondents for analysis last month consisted of 5 parts of zinc sulphate, 5 parts of ferrous sulphate, and 2 parts of manganous sulphate. Its calculated composition was :—

Zn	9.44
Fe	8.39
Mn	3.80
SO ₄	34.97
H ₂ O	43.40
	100.00

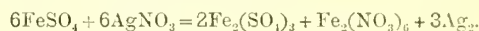
There were 72 packets of the powder issued to correspondents, and 37 reports of analyses were received. Fourteen students failed to detect manganese, and seven failed to detect zinc; the other constituents were detected by all except one student, who overlooked the acidulous radicles.

It will be seen from the above results that the analysis proved an easy one: it was only in the case of the manganese that any difficulty arose. This metal ought always to be detected, where present, in the preliminary examination of a solid. The production of green sodium manganate by fusing any manganese compound with an alkaline carbonate and an oxidising agent, such as a nitrate, is one of the most sensitive of blowpipe-reactions, and it is one not easily confounded with any other reaction. A minute quantity of the solid suffices for this test, and it should never be omitted, more particularly as manganese, except when present in quantity, may readily escape notice in the ordinary course of analysis in the wet way.

The failures in the detection of manganese in this case illustrate very well the difficulty there is in separating the members of the group to which it belongs. In almost every report before us some method depending upon the use of ammonia or the fixed alkalis was resorted to, and in no case does a thoroughly satisfactory separation seem to have been effected, though the results were often sufficient for qualita-

tive purposes. Very much sharper results could have been obtained by the use of barium carbonate—a method which does not receive sufficient attention.

A reaction which puzzled several of our contributors is worthy of notice. On adding silver nitrate to an aqueous solution of the salt, a greyish glistening precipitate appeared. The presence of dilute nitric acid did not prevent the formation of this precipitate, and careful observers might have noticed that it formed most readily under the influence of strong light. The precipitate consisted of metallic silver. The reaction was utilised in photography nearly fifty years ago. When the old collodion process was in vogue, ferrous sulphate was one of the commonest developers. Silver nitrate is reduced by ferrous sulphate, with the production of ferrie sulphate, ferric nitrate, and metallic silver. The reaction may be represented as follows :—



In the development of the wet collodion plate, the excess of silver nitrate in the film was thus reduced by ferrous sulphate. In order to confine the action to the invisible image, and to prevent a general deposit of silver over the surface of the plate, acetic acid was employed as a "restrainer," with the result that silver was deposited only where light had already caused a certain amount of reduction, and in this way the visible image was built up of metallic silver. It will thus be seen that at one stage in the history of photography the reaction had great technical importance.

PRIZES.

The First Prize for the best analysis has been awarded to

W. H. WANDLESS, c/o Messrs. Wilmer & Hitchin,
Whitehaven.

The Second Prize has been awarded to

ARTHUR M. THORPE, Spalding, Lines.

Marks Awarded for Analyses :—

W. H. Wandless	100	Harold Read	85
A. M. Thorpe	99	Wilkie	83
Popsine	98	M. F. C. S.	82
Zymine	97	C. A. W.	80
H. Bowden	96	Ornum	80
Iodic Hydrarg.	95	H. F.	78
Phoenix	95	E. C. Angel	76
Cono	95	Cortex	75
Oxymuriate	95	M. D. R. D.	75
A. Jones	95	Alloxan	73
F. W. G.	94	Kapomor.	72
Campanulate	93	Frango	70
T. K.	93	Victory	70
Danelm	93	Nux	65
Timothy	92	L. A. Cocker	50
Danwer	91	W. S.	50
W. Izou	90	No name	40
Epsilon	88	W. J. Cox	35
Aniline	87		

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—All communications should include the names and addresses of the writers.

IODIC HYDRARG.—The powder was of a light green colour. You describe it as yellow.

OXYMURIATE.—We have elsewhere referred to the reaction that puzzled you.

F. W. G.—The sulphurous anhydride you observed was a product of the decomposition of ferrous sulphate by heat. At a high temperature the constituents of this salt are dissociated, and part of the sulphuric anhydride is

deoxidised by the ferrous oxide, with the production of ferric oxide and sulphurous anhydride.

DANWELL.—The supposed acetic odour was due to sulphurous anhydride; for the explanation of the production of this gas see remarks to F. W. G.

W. IZON.—You must remember that the calcium hydrate test for ammonia, as you applied it, is most sensitive. The air of a room in which ammonia is used as a reagent would change the colour of the litmus-paper in a very short time.

ANILINE.—You did not add enough nitric acid to the solution obtained by boiling the powder with sodium carbonate; hence the precipitate of silver carbonate, which, like the chloride, is soluble in ammonia. Sometimes sodium carbonate contains a notable quantity of chloride.

H. READ.—Many of our correspondents detected manganese in the preliminary examination. The residue from the ignition of the powder would have sufficed for a test for manganese: it was only necessary to ignite it with sodium carbonate and nitrate. Had you applied this test to the sulphides, which you supposed from the colour to contain zinc only, you would have obtained a green mass.

WILKIE.—Your work was good, but your report did not do justice to it. You might with advantage give much more attention to the arrangement and writing out of your report. We have elsewhere drawn attention to the reaction you observed with silver nitrate.

M. F. C. S.—It is hard to understand how you could have ignited the powder with an alkaline carbonate and nitrate without obtaining a green mass. Even gentle ignition sufficed to produce a brilliantly-green mass.

C. A. W.—You state that you obtained "a bead of mixed colours" on igniting with sodium carbonate. This is indefinite, and it suggests a very imperfect fusion.

ORNIUM.—It is quite possible that most of the manganese was thrown down along with the ferric hydrate, especially if the quantity of ammonium chloride present was small: but then you ought to have noticed the green colour of the mass obtained on fusion with sodium carbonate and nitrate.

H. F.—In the ferrous-sulphate test for nitric acid the great difference in the refraction of the dense sulphuric acid at the bottom of the tube, and that of the lighter liquid above it, produces an optical effect which is sometimes mistaken for a coloured ring. One must be careful to guard against this mistake.

E. C. ANGEL.—Your indications of an acetate were too indefinite. In the absence of any readily volatile acid, acetic acid may be isolated with great ease by distillation with dilute sulphuric acid.

CORTEX.—See remarks to H. F. You did not give particulars of your test for nitric acid.

M. D. R. D.—The solubility in dilute hydrochloric acid of the precipitate produced by ammonium sulphide did not prove the absence of zinc, as stated in your report. Had you found it soluble in acetic acid, it would have shown that zinc was not present. The colour of the precipitate was not that of manganese sulphide.

ALLOXAN.—Make a few experiments on the reactions of hyposulphites, and you will find they are very different from those you observed in the examination of the powder.

KAPOOR.—A clear solution containing a sulphate could not at the same time contain enough lead to give a precipitate with hydrochloric acid, the sulphate of lead being much less soluble in water than the chloride.

NIX.—You probably precipitated most of the zinc with the ferric hydrate. The conditions favourable to this irregularity would be a dilute solution, an insufficiency of ammonium chloride and hydrate, and boiling before filtration.

L. A. COCKER.—The treatment you describe could not possibly have produced your results; there must have been some mistake in the reagents.

W. S.—You omitted to look for the acids—a most important part of the analysis.

NO NAME.—This report was not signed.

W. J. COX.—Practise with mixtures of your own preparation, and you will soon become familiar with reactions and methods of separation. Without a training of this kind you will find it hard to make any progress with mixtures of unknown composition.

English News.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Eight Hours and Less Pay.

As a result of the lock-out at Messrs. Bowman, Thompson & Co.'s chemical-works at Lostock, near Northwich, the men and masters met last week, and it was agreed to resume work at once on a general reduction of wages of 3*d.* to 6*d.* per shift. The men decided to remain on the eight hours system despite favourable terms if they would work twelve,

Institute of Chemistry Laboratory.

The preliminary arrangements have now been completed for the new laboratories which the Institute of Chemistry are to erect in Bloomsbury Square, chiefly for examination purposes. The building will cover an area of 80 feet by 40 feet, and will contain a main laboratory about 32 feet by 36 feet, a balance-room, combustion-room, sulphuretted hydrogen chamber, cloak-room and lavatory accommodation. These are divided between basement and ground floor. The former will be chiefly devoted to spectrum analysis, preparation rooms, &c., while the ground floor will be occupied by the main laboratory and balance-room. The laboratory is to have benches for thirty-two students, a desk for the examiner, and four draught closets, attached to which will be special arrangements for ventilation. Messrs. Parkinson & Son, the builders, who do most of the Pharmaceutical Society's work, have contracted to erect the laboratories at a cost of 2,098*l.*

Excursions.

The employés of Walker, Troke & Co. had their annual outing on July 1. The place selected was Brighton, where a very enjoyable day was spent.

Messrs. Stevenson & Howell's employés had their annual holiday on Saturday, July 1, at Portsmouth, where arrangements had been made by the firm to have them conducted over the dockyard. Dinner and tea were provided at the Sussex Hotel, and, favoured by glorious summer weather, a most enjoyable day was spent.

Messrs. Burgoyne, Burbidges & Co.'s staff made their summer excursion on Saturday, July 8, Shirley Hills, near Croydon, being the spot chosen. Rain in the afternoon interfered slightly with the proceedings, but an interesting programme of sports was got through with perfect success. To the successful competitors some very handsome prizes were distributed after the contests, Mr. Webb officiating at this ceremony in the place of Mr. Farries, who was unavoidably prevented from being present. Among the prizes were a massive marble clock, given by Mr. T. Burbidge; a similar one, given by Mr. Farries; a fine set of carvers in case, given by Messrs. Robinson & Son, Chesterfield; a brown-ware jug, silver mounted, given by Messrs. Mappin & Webb; a liqueur-frame, given by Messrs. Marks & Son (Limited); a pair of Doulton-ware vases, given by Messrs. Doulton & Co.; and many other articles of value. Dinner was served at the Sandrock Hotel, after which a merry evening was passed, with speeches, songs, and musical performances.

The annual excursion of the staff and employés of Messrs. G. B. Kent & Sons, of Great Marlborough Street, took place on Saturday last, when, at the invitation of the firm, a party of about 150 journeyed to Eastbourne, to spend the day at the seaside. Dinner was held at the Town Hall, and was evidently heartily enjoyed. After the loyal toasts, Mr. Benwell, as one of the oldest employés, proposed the toast of "The Firm." He spoke in the highest terms of the continued good feeling that existed between them, and referred, amid loud applause, to the benevolent institutions supported for the benefit of the workpeople. Mr. G. Harold Kent and Mr. Arthur Kent both replied in pleasing terms. With reference to the benevolent fund, Mr. Arthur Kent said it was not only a duty but it was a pleasure to the firm to help any of their workpeople who were in need. Mr. Harold Kent then proposed the health of the employés, and the party soon after separated to the various enjoyments of the afternoon. It was mentioned at the dinner that the young ladies employed by Messrs. Kent, to the number of 110, were also merrymaking at the firm's invitation on the same day in another place. The arrangements for the day were very ably carried out under the genial stewardship of Mr. Tindley and Mr. Hawtin, the former gentleman being especially energetic in his efforts for the comfort of all.

The employés of Mr. William Gardner, patentee of the "Rapid" sifter and mixer, and flour-mill engineer, of Gloucester, had their annual outing on Saturday, July 8. They started at 8 A.M. in breaks for Symonds Yat, which was reached about midday, where a substantial meal was provided. After dinner a short toast-list was gone through, the toast of "The Firm" being replied to by Mr. C. E. Gardner,

who said he hoped before their next outing they would be fully settled in the new premises which were being built for them. The toast of "The Staff" was responded to by Mr. W. S. Barron and Mr. S. Meadows. The afternoon was spent by some in climbing the Yat, visiting the caves and Dripping Well, and by others boating on the river Wye. After tea the return journey was made, a halt of an hour being made at Ross, where the works band played selections. Gloucester was reached about 12.30.

The employés of the Prosser Roberts Company, pharmaceutical chemists, Camberwell and Walworth, S.E., held their annual outing on Thursday, July 6, at Hastings. Dinner was served at the Washington Hotel. After dinner the party went for a drive, returning by the way of St. Leonards, the photographic enthusiasts obtaining some good pictures by the way. Tea was served at 5 o'clock, and afterwards further enjoyment was pursued until late in the evening.

Sale of a Camera.

At the Lindsey Quarter Sessions, on Friday last, Arthur Gladew, reporter on the *Gainsborough Star*, was indicted for having obtained a photographic-camera and apparatus, value 9*l.* 5*s.*, by means of false pretences, from Mr. Arthur Surfleet, pharmaceutical chemist, Gainsborough, on October 21 last.

The defendant had canvassed Mr. Surfleet for an advertisement, and shortly afterwards wrote him a letter setting forth that he was prepared to buy the camera and apparatus for 9*l.* 5*s.*, to be paid for by monthly instalments of 30*s.* The letter was written on a sheet of note-paper, with a printed heading, giving the name of the journal, and representing the prisoner as manager. As the prosecutor believed that defendant was really manager he parted with the camera, in respect of which no payments had been made. Several applications were made to the defendant for payment, and at last the collector told him he had better return the camera to Mr. Surfleet. The prisoner then said he had sold the camera, and it afterwards transpired that it had been pawned.

Joshua Davey, the proprietor of the paper, said the prisoner was employed as reporter. He was not manager, and he distinctly told witness that he had not represented himself as such.

Mr. Fox, in addressing the jury, said he thought all who heard the case would doubt very much whether the prosecutor let the prisoner have the camera simply because the word "manager" appeared on the note-paper, but assuming that that was so, it did not amount to a false representation on the part of prisoner. He complained that a system seemed to be growing up of converting civil debts into criminal charges, and inflicting the costs of such proceedings upon the county, but such a system ought to be carefully watched and put down.

The jury were at first unable to agree, but finally returned a verdict of not guilty.

Carbolic Poisonings.

On Wednesday evening of last week, about half-past six o'clock, an elderly woman named Anna Sofia Williams, residing in Shaw Street, Liverpool, was found by her husband in an unconscious condition on returning from his work. She was removed to the Royal Infirmary, and died there shortly after admission from the effects of carbolic-acid poisoning. Two bottles, one containing carbolic acid and the other laudanum, were found on a table in the room. The coroner's jury returned a verdict of suicide while temporarily insane.

On Wednesday of last week, Thomas Richardson, a relieving officer, died from the effects of carbolic acid, self-administered at Great Strickland, Cumberland. The deceased had suffered much during the last three or four months from attacks of diarrhoea, and he had several times complained that he could not do his work. At the inquest a verdict in accordance with the evidence was returned.

At Dartmouth, on Thursday, July 6, a cook named Catherine Mitchell, aged 19, in the employ of Dr. and Mrs. Soper, Newcomin Road, died after taking carbolic acid. At the inquest the evidence showed that she went to bed with her fellow-servant, Sophia Ferris, on Thursday night at half-past ten, in her usual health and spirits. She had taken carbolic

acid from a bottle which she must have abstracted from the surgery.

A young woman named Mary Ambrose, aged about 23, in service with a Mrs. Butler, of Milton Road, Woolston, drank a quantity of carbolic acid on Thursday morning of last week. After that she went to bed and covered herself with the clothes. Subsequently, she left the house and jumped into the water, but was not drowned, and she then returned to the house and took her clothes off and disappeared. About midnight she was discovered by a police-sergeant in a greenhouse without any clothes on whatever. Her head was covered with mud, and she was in a pitiable condition. She was taken to the Woolston police-station, where she recovered. On appearing before the Magistrate she was discharged in the custody of her friends.

David Howard, bicycle-filer, of Coventry, had been out of work since Whitsuntide, and got into a very depressed state. On Saturday evening he purchased a pennyworth of carbolic acid from Mr. Henry Glover, chemist, 68 Spon Street, and drank the whole of it. Mr. Glover said that deceased was warned of the nature of the drug, and that he said it was to put down a drain. Mr. Glover said he repeatedly sold carbolic acid, as it was a popular disinfectant. It could be sold without any restriction whatever, and was so sold by grocers and ironmongers. The Coroner observed that he thought the law should be remedied, and when the Legislature had time to deal with practical matters he hoped this would be attended to. It was a very unfortunate thing that poisons like carbolic acid could be sold by anybody, without any restriction except that of being labelled "Poison." The jury concurred, and returned a verdict of suicide by carbolic-acid poisoning.

Charge of Stealing Surgical Instruments.

At the Nottingham Borough Sessions, on Friday of last week, Walter A. Parkes was charged with stealing a quantity of surgical appliances, valued at 750*l.*, the property of Mr. J. H. Haywood, Castle Gate, Nottingham, and Alfred Smith, surgical-appliance maker, was charged with receiving same, knowing them to have been stolen. (We reported the case in our issue of June 3 last.)

The prisoners pleaded guilty, and a plea for mercy was put in on their behalf, it being stated that Smith was a married man with four children, and that he had suffered from epilepsy, which had taken a more acute form since his confinement; and on behalf of Parkes that he had been the sole support of his mother, who had died from shock following upon her son's imprisonment.

The Recorder said he had intended to sentence the prisoners to a longer term, but, under the circumstances, he thought the justice of the case would be met by sending them to prison for twelve months with hard labour.

Illuminations.

Just as the streets were being cleared by the police and the military for the Royal pageant, on July 6, smoke was seen issuing from the top-floor room of the shop occupied by Messrs. Huggins & Co., chemists and druggists, 199 Strand. The room was used for the manufacture of ozone paper, and the floor was saturated by the chemicals, and it is believed that one of the large number of persons occupying the room to view the procession threw down a lighted match, and the flooring soon caught fire. It was quickly extinguished, very little damage being done.

To the waves of illumination on the Royal marriage night Messrs. Bird & Storey, 42 Castle Street East, W., contributed their quota in the shape of a star of eight points, consisting of "fairy-lamps" of different colours, affording not only a testimony of the loyalty of the proprietors, but also a pretty and effective contrast to the numerous gas, electric, and other devices in the neighbourhood.

Selling Photographic Goods to Amateurs.

In the Westminster County Court on Monday, before his Honour Judge Lumley Smith, Q.C., the London Stereoscopic and Photographic Company of Regent Street, W., sued Mr. Heneage, a gentleman of independent means, residing at St. James's Street, for 24*l.* 7*s.* 4*d.* in respect of a photographic camera and a quantity of prepared plates supplied to the order of the defendant. It was stated for the plaintiffs that in

August, 1891, the defendant called at their place of business and ordered the goods in question to be sent to him. They were delivered on the same evening, but the defendant was not at home at the time, and on the following day, when the plaintiffs' representative called, he was informed that the defendant had left for America and had taken the goods with him. Nothing more was heard of him till three months later, when the camera and plates were returned with a message that the instrument would not take instantaneous photographs and that the plates were also defective. The plaintiffs expressed regret and had both the camera and the plates tested by their own experts, who found them in perfect condition. The defendant was notified to that effect, and, as it was known that he was only an amateur, the plaintiffs offered to give him instruction in the use of the camera; but he never availed himself of the offer and the goods were returned to him, but he still declined to pay the account.

The plaintiffs' manager produced pictures recently taken with the camera, and in which some of the same plates were used. These had been taken instantaneously and were nearly two years old. They had perfect results. Witness thought the defendant must have put the sensitive sides of the plates away from the lens. Nothing whatever had been done to the camera, and it was in perfect working-order.

The defendant said that while in America he was unable to take an instantaneous photograph with the apparatus, and, as he wanted to get photographs of wild animals, it was entirely useless to him.

His Honour gave judgment for the plaintiffs, with costs.

The Annual Photographic Convention

was held last week at the Athenæum, Plymouth, under the presidency of Mr. George Mason. At the reception held by the Mayor of Devonport it was mentioned that Robert Hunt, one of the earliest and most painstaking investigators of the principles of chemistry and photographic operations, was a native of the borough. Invitations for next year's Convention were received from Dublin and Shrewsbury, and that of the Irish capital was accepted by 36 votes to about 6 for Shrewsbury.

The Veterinary Work of the London County Council.

The London County Council on Tuesday resolved to appoint Mr. Frederick T. Stanley to medically attend to the horses at the central works, Belvedere Road, and also to carry out the shoeing of the horses, for the sum of 5*l.* 5*s.* per horse per annum, which sum is to include medicines; and also that he do examine and assist in valuing any horses proposed to be purchased, and that he be paid 1*l.* 1*s.* for the examination of each horse which is bought by the Council.

An "Adventuring" Traveller Amongst Chemists.

In the City of London Court, on Tuesday, before Mr. Commissioner Kerr, the case of Dore v. Brown was tried, in which the plaintiff, Mr. John H. L. Dore, soap-manufacturer, 29 Mincing Lane, E.C., sought to recover the sum of 3*l.* 10*s.* for fancy soaps supplied to the defendants, Messrs. Brown & Co., chemists, Chapel Road, Stoke Newington. Mr. Carlyle appeared for the plaintiff, and Mr. Pearce for the defendants.

Mr. Pearce said the debt had been paid. Mr. Carlyle said they had not received the money. Mr. Pearce said the money was paid to the plaintiff's traveller, Bullen, to whom the defendant gave the order, and he produced the receipt. The plaintiff stated in his evidence that Bullen was really not his traveller. Bullen called upon him one day and, seeing some fancy soaps, said he knew a lot of chemists who would give him orders. He gave Bullen a quotation and some samples, and when he obtained orders he (plaintiff) executed them.

Mr. Commissioner Kerr: You must not employ these kind of adventurers. I cannot help you. There must be judgment for the defendants.

The Plaintiff: He was the defendants' traveller, not mine.

Mr. Commissioner Kerr said the plaintiff could take the traveller before a magistrate if he chose. He must find for the defendants, with costs.

A Dishonest Traveller.

On Monday, George Read, 40, traveller, was indicted at the West Kent Assizes for forgery and embezzlement in connection with the Pyn-Ka Syndicate. Prisoner pleaded

guilty. It appeared prisoner was employed by the Pyn-Ka Syndicate as traveller, but after being discharged by them he continued calling upon tradesmen, and, representing himself as being still in the employ of the syndicate, he obtained various sums of money in settlement of bills which were contracted before prisoner was discharged. The prisoner was sentenced to six months' hard labour.

Overdoses.

Mr. Stuart Corry, an actor, died on Sunday last, at his apartments, 140 York Road, Lambeth, from an overdose of chloral, which he had been taking for some time for insomnia. Mr. Corry was said to be the son of a leading medical man at Belfast.

A young gentleman named Percival Frost, 26, a B.A. of Oxford, and a medical student, was found last week dead in a boat at Taplow. The evidence showed that he suffered from toothache, and there was every probability that he had tried to get relief by the injection of morphia, and had overdosed himself. A case of hypodermic tabloids of morphia had been supplied to him by Mr. Druce, chemist, Oxford.

Soda-water in Leeds.

In the quarterly report of the public analyst for Leeds it is mentioned that nine samples of soda-water had been tested. "The proportion of sodium bicarbonate varied greatly, one sample containing as much as 308 grains per gallon. Three samples averaged 28 grains. Three other samples contained less than 3 grains; while two samples contained no soda, being simply water charged with carbonic-acid gas. In the British Pharmacopœia the proportion of sodium bicarbonate is fixed at 240 grains per gallon. The term 'soda-water' is frequently wrongly used for aerated waters which do not contain any soda."

A Building Society's Rules.

At the Bangor County Court, on Monday, before his Honour Sir Horatio Lloyd, T. J. Hughes, chemist and druggist, Bethesda, sued the Bethesda Building Society to recover the sum of 2*l.* 6*s.* 4*d.*, amount of interest due on shares. Mr. Twigge Ellis, on behalf of the Building Society, said that according to the rules of the Society the plaintiff was precluded from bringing the action. The matter should have been referred to arbitration. His Honour adopted this view, and gave judgment for the defendants, with costs.

Annoying a Chemist.

At North London Police Court, on Wednesday, before Mr. Lane, Q.C., a rough-looking man named George Thompson was charged, on a warrant, with threatening his wife; and, further, with annoying Mr. Thomas C. Wootton, a retired chemist, of Holloway Road, where he was employed. Mr. Lane said the prisoner would have to find one bail in 10*l.* to keep the peace for six months, or go to gaol for two months.

Contracts for Disinfectants.

The St. George's Vestry, Southwark, have received a report from Dr. Muter, their analyst, stating that the disinfectants supplied to the Vestry were useless as such. The Vestry decided to enter the report on the minutes, and to obtain the required disinfectants from another firm.

The Bermondsey Vestry have accepted the tender of Messrs. Adcock & Sons for the supply of disinfectants for the ensuing year.

At the meeting of the Holborn Board of Works on Monday night, Mr. G. Phillips in the chair, the Sanitary Committee reported that the analyst had certified a further supply of disinfectants as not being up to the standard required by the contract, and the analyst's report on two other samples not being yet to hand, the Committee recommended, in the event of the report on these samples not being satisfactory, that the contract be rescinded and the disinfectants obtained from another firm. The Clerk (Mr. Matthew Hall) read the analysis of the two samples in question, from which it appeared that one was above and the other below the standard required by the contract. On the suggestion of the Clerk, the matter was referred back to the Committee for further consideration and report.

Death by Misadventure.

At an inquest at Lincoln, on Monday, it transpired that a firm of surgeons had two patients of the same name, one a child aged 14 months, the other a man; that a boy was sent to the surgery for medicine; and that a draught intended for the man was sent to the baby in mistake, causing its death. The jury returned a verdict of death from misadventure.

Irish News.

Personal.

An election of dispenser to the Belfast Royal Hospital, took place on July 8. There were three candidates for the office, and on the vote being taken it resulted as follows:—Mr. D. W. Elliott, M.P.S.I., Royal Av. Medical Hall, 20 votes; Mr. W. Burns, L.P.S.I., 11 votes; Mr. Moore, 6 votes. Mr. Elliott was appointed.

Adulterated Linseed Meal.

A statement was made at a meeting of the Council of the Chemico-Agricultural Society, on Friday last, by Mr. J. F. W. Hodges, J.P., F.I.C., City Analyst, directing attention to the sale of adulterated linseed meal in Belfast. Mr. Hodges had a number of samples of linseed meal taken, and found that the majority were adulterated with wheat-dust and other meals, the adulteration amounting to as high in some cases as 50 per cent., and so skilfully was the adulteration carried into effect that it was quite impossible even for experienced judges to detect the fraud except by analysis. A resolution was passed that some action should be taken in the matter to protect the public.

Scotch News.

Aberdeen Chemists' Picnic.

The Aberdeen chemists and their friends, to the number of about forty, held their annual picnic at Braemar on July 5. The company left by the morning train for Ballater, whence coaches conveyed them to Braemar. Dinner was served in the Invercauld Arms, Braemar. In the absence of the President, Mr. Johnston (who was at the Council-meeting in London), the Vice-President, Mr. Mortimer, occupied the chair. After a few toasts, the company separated—some to climb Morone, others to the falls of the Garra-Walt, the remainder resting on the greensward and basking in the tropical sun. On the return journey a garden-tea was enjoyed at Ballater, and Aberdeen was reached by 9 P.M.

French Pharmaceutical News.

(From our Paris Correspondent.)

A TERRIBLE ACCIDENT occurred last Friday morning at Chasserand's chemical-works, 42 Rue Liancourt, where Collas' benzine is made. M. Haizé, an old employé, 68 years of age, was engaged in putting benzine into bottles in a cellar beneath the laboratories, when he fell down, partially suffocated by the vapour. Two workmen, named Fouquet and Folliet, went down to help M. Haizé on his legs again, but they met with the same fate. The fire-brigade was speedily summoned, and by means of special ventilating-apparatus the three victims were brought up from the cellar. The usual remedies were applied, but too late to save M. Haizé. The others regained their senses within a short time.

THE ALCOHOL-DUTY AND MANUFACTURERS.—M. Poirrier, the well-known chemical-manufacturer and senator, has invited the Syndical Chamber of Paris Chemical-manufacturers

to make an effort, if not to obtain the suppression of the tax on alcohols used for industrial purposes, at least to prevent its proposed increase. The Chamber has readily taken the matter up, and an address has been sent to the French Minister of Finance showing that, even under existing circumstances, competition with other countries is well-nigh impossible for pharmaceutical preparations, chemicals, &c., in which alcohol is used. The tax is at present 37f. 50c. per hundred litres, and it is proposed to raise it to 50f., or 50c. per litre. It is very improbable that the tax will be suppressed entirely, and the best French manufacturers can hope for is that the old rate will be maintained.

HERBALISTS v. PHARMACISTS.—Originally one of the propositions in M. Lockroy's new law on pharmacy was the entire suppression of herbalists, though he has since undertaken to withdraw this part of the scheme. His idea was that grocers could easily undertake the sale of simple drugs, and that they would require no diploma or special licence for so doing. The herbalists pointed out that this would certainly lead to grave errors and to continued litigation between pharmacists and grocers. There is no doubt that, in Paris especially, herbalists render considerable service to the poorer classes. The fact that there are 700 of them established in business in that city seems to prove they are appreciated by the public. Their businesses are said to represent an aggregate value of 320,000f., which M. Lockroy admits is worthy of consideration. The Paris School of Pharmacy will draw up a list of the medicaments that herbalists can sell without interfering with the legitimate profession of chemists.

THE PARIS RIOTS.—When, rather more than a year ago, the dynamite scare caused so great a sensation in Paris, one of the principal sufferers was a pharmacist of the Rue de Clichy, whose premises were partially blown up, and now Pharmacy has again been a sufferer in the recent riots. During the early part of last week, when the police and mounted Municipal Guards were constantly charging the crowds, a number of persons were injured, and they were mostly taken to neighbouring pharmacies to have their wounds dressed. On the night of July 4, after some brutalities by the police in the Boulevard St. Germain, three injured persons found their way to M. Cirette's pharmacy, 60 Rue Mazarin. He could not refuse them admittance, and an enormous concourse of people soon assembled round the shop. At the request of his young wife, who was expecting to be confined and had become exceedingly afraid, M. Cirette closed his premises, continuing, nevertheless, to do all he could for his patients. This state of things did not satisfy a group of roughs, who knocked loudly against the shop-front, causing Mme. Cirette to faint. The poor lady died two days later of the effects of fright. The funeral took place on Sunday, July 9, and a great number of M. Cirette's friends and neighbours showed their sympathy by their presence at the funeral service held at the church of St. Germain des Près, where numerous wreaths and flowers decked the coffin. The arrest of a pharmacist in connection with the rioting was announced in THE CHEMIST AND DRUGGIST of last week. Other members of the craft have also suffered inconvenience. During a charge of the now somewhat notorious 4th Central Brigade of Police on Tuesday of last week at the entrance of the Charité Hospital, M. Goupil, a pharmacist whose *officine* is situated at a few yards from the entrance, could not restrain his indignation at the police brutalities he witnessed. In a moment of excitement he called them "assassins," and on Thursday was arrested on the charge of insulting the representatives of law and order. He has been refused bail, and has been replaced at his pharmacy during his forced absence by an assistant. Professor Germain Sée is also said to have irritated the police by a letter addressed by him to the newspapers on Thursday, July 6. On arriving at the Hôtel Dieu Hospital, on Wednesday, the doctor found that his pharmacist and house surgeon had disappeared since the previous day—both had been arrested. Professor Sée, by a special effort, succeeded in getting the house surgeon released, but the pharmacist is paying penalty for the two by twenty days' imprisonment. In addition to this the police have tried to prove that the pharmacists attached to the above-named hospital hissed in chorus from their rooms while a clearance was being made near by.

Pharmaceutical Society of Great Britain.

PRELIMINARY EXAMINATION.

The following are the questions set on Tuesday, July 11:—

LATIN.

(Time allowed—from 11 A.M. to 12.30 P.M.)

I. For all candidates. Translate into Latin:—

1. He gave me his brother's house.
2. Men's hands are stronger than boys'.
3. This is the girl whose book was given to me.
4. The camp was placed seven miles from Rome.
5. It cannot be denied that your friend is more wealthy than wise.

II. Translate into English either A (Caesar) or B (Virgil).

(Candidates must not attempt both authors.)

A. CAESAR.

1. Ea res per fugitivos L. Aemilii decurionis equitum Gallorum, hostibus nuntiatur. Helvetii, seu quod timore perterritos Romanos discedere a se existimarent, eo magis, quod pridie, superioribus locis occupatis, proelium non commisissent, sive eo, quod re frumentaria intercludi posse conficerent, commutato consilio atque itinere converso, nostros a novissimo agmine insequi ac lacessere coeperunt.

2. Locutus est pro his Divitiacus Aeduis; Galliae totius factiones esse duas; harum alterius principatum tenere Aeduos, alterius Arvernorum. Hi quum tantopere de potentatu inter se multos annos contenderent, factum esse, uti ab Arvernus Sequanisque Germani merecile arcescerentur. Horum primo circiter milia xv Rhenum transisse; postea quam agros et cultum et copias Gallorum homines feri ac barbari adamassent, traductos plures; nunc esse in Gallia ad e et xx milium numerum.

Grammatical Questions.—For those only who take Caesar.

1. Decline in full (singular and plural) *superioribus locis*, and *aorissimo agmine* (Paragraph 2).

2. Write, in full, the indicative perfect, and subjunctive present, of *posse* and *insequi* (Paragraph 1).

3. Write down the comparatives and superlatives of *bonus*, *facilis*, *piger*, *parvus*, *nequam*.

4. Explain the different constructions after verbs of *fearing* and *forbidding*.

B. VIRGIL.

1. Imperium Dido Tyria regit urbe profecta, Germanum fugiens. Longa est injuria, longae Ambages; sed summa sequar fastigia rerum. Hinc conjux Sichaeus erat, ditissimus agri Phoenicem, et magno miserae dilectus amore; Cui pater intactam dederat, primisque jugarat Omnibus.

2. Rex erat Aeneas nobis, quo justior alter Nec pietate fuit, nec bello major et armis; Quem si fata virum servant, si vespicit aura Aetheria, neque adhuc crudelibus occubat umbris, Non metus. Officio nec te certasse priorem Poenituit: sunt et Siculis regionibus urbes, Armaque, Trojanaque a sanguine clarus Aestes.

Grammatical Questions.—For those only who take Virgil.

1. Decline in the plural *longae ambages*, and in the singular *magno amore* (Paragraph 1).

2. Write, in full, the indicative perfect, and subjunctive present, of *posse* and *insequi*.

3. Write down the comparatives and superlatives of *bonus*, *facilis*, *piger*, *parvus*, *nequam*.

4. Explain the different constructions after verbs of *fearing* and *forbidding*.

ARITHMETIC.

(Time allowed—from 12.30 P.M. to 2 P.M.)

(The working of these questions, as well as the answers, must be written out in full.)

1. From 261 times 35l. 4s. 2d. take 9,089l. 5s., and divide the remainder by 89.

2. Reduce $\frac{1}{10}$ of 10s. + $\frac{1}{5}$ of 5s. 3d. + $\frac{1}{2}$ of half-a-crown to the decimal of £l. 5s. 9d.

3. Simplify $\frac{(32-29)+147}{-003 \times 0005}$.

4. If 5 ewt. 3 qr. 18 lb. 8 oz. cost 24l. 7s. 6d., what will be the price of 12 ewt. 2 qr. 14 lb. 6 oz.?

5. Divide 80 hectares of land between A, B, and C, so that A shall have 2 hectares 76 ares more than B, and C 11 hectares 12 ares more than B.

6. By selling a gallon of a liquid for 21s. I gain $\frac{1}{5}$ of the cost. What should I gain per cent. by selling the gallon for 22s. 6d.?

7. A person sells 530l. Three-per-Cent. Stock at 86, and invests the proceeds at 3 $\frac{1}{2}$ per cent. What is the alteration in his income?

ENGLISH.

(Time allowed—from 3 P.M. to 4.30 P.M.)

1. Analyse:—

"All places that the eye of heaven visits
Are to a wise man ports and happy heavens.
Teach thy necessity to reason thus:
There is no virtue like necessity."

2. Parse fully:—*There is no virtue like necessity.*

3. Correct the following sentences, giving your reasons:—

- (i.) Neither Thomas or William were in.
- (ii.) John cannot run so quick as him.
- (iii.) The view from this point is one of, if it be not, the most lovely.

4. In the following passage supply the necessary capital letters, and put in the stops and inverted commas where necessary:—he soon found his way to the first class which consisted of boys far beyond his own years and among the more or less legendary stories which have gathered around his early boyhood such as how he got getting on with his german oh he has finished german he is now doing anglo saxon one stands out on clear evidence

*5. Write a short composition on one of the following subjects:—

- (i.) The influence of newspapers.
- (ii.) The exhibition at Chicago.
- (iii.) Ancient and modern warfare.
- (iv.) "Prosperity gives us friends, adversity proves them."

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

RAWLEY—FREEMAN.—On July 6, at St. Paul's Church, Birmingham, by the Rev. W. H. Smith, M.A., Vicar, assisted by the Rev. L. F. Vane S. de Heriz, Rector of Nether Whitacre, George Albert, eldest son of George Rawley, of Birmingham, to Beatrice Mary, only daughter of John Freeman, chemist, of Birmingham, and also of Nether Whitacre.

DEATHS.

BOTHAM.—On July 7, at 4 Blackmoor Street, London, W.C., Frank John Botham, chemist and druggist. Aged 41.

EDWARDS.—On June 26, Henry Edwards, chemist and druggist, Broughton-in-Furness. Aged 58.

EVANS.—On June 16, Evan Thomas Evans, chemist and druggist, Pembroke Dock. Aged 41.

HARRIS.—On June 6, Francis George Harris, chemist and druggist, late of Liverpool. Aged 44.

SIMPSON.—On June 13, Charles Alfred Simpson, chemist and druggist, Hackney. Aged 37.

SMITH.—On July 10, at Billingborough, Lincolnshire, William Forster Smith, chemist and druggist. Aged 72. The deceased gentleman was the oldest tradesman in the town, having carried on a successful business since 1846.

STEER.—On June 29, Walter Fox Steer, chemist and druggist, Reigate. Aged 46.

THOMPSON.—On June 14, Henry Thompson, chemist and druggist, Tottenham. Aged 62.

WEST.—On June 13, at Royapettah, Madras, G. J. West, senior partner of the firm of G. J. West & Co., chemists and druggists, Royapettah High Road. Aged 43. The deceased leaves a widow and large family.

* This must be attempted by every candidate.

Pharmaceutical Society of Ireland.

ON Wednesday, July 5, the monthly meeting of the Council was held at the Society's House, 67 Lower Mount Street, Dublin, at 3 P.M. Present:—The President (Mr. William Hayes) in the chair; Messrs. Wells, Hodgson, Downes, Gibson, Conyngham, Montgomery, Lyons, Baxter, Turkington, and Boyd.

INVITATION.

A letter was received from the Secretary of the British Institute of Public Health inviting the Council to send delegates to its annual Congress in Edinburgh from July 27 to August 1.

The Registrar was directed to communicate with Professor Tichborne, Mr. Gibson, and Mr. Payne on the subject.

A CLAIM FOR REGISTRATION.

A letter was received from Mr. John McCabe, of Redhills, Belturbet, requesting the Council to reconsider his claim to be registered as a chemist and druggist, and forwarding additional evidence.

The PRESIDENT said the Council were not satisfied with the evidence that this gentleman sent with his original application, and his claim was rejected and his fee returned. He now sent invoices of Messrs. Clarke & McMullen of the year 1873, relating to drugs and a few poisons. The question was whether, as he had not sent this evidence before, they would now reopen the consideration of his case.

Mr. WELLS: We rejected a great many others in the same way. This gentleman got several letters asking for information, and he took no notice of them.

Mr. HODGSON: They don't understand these things in the country. We must make allowance for their stupidity.

Mr. WELLS: He was told that we passed a resolution to the effect that unless we got the information before a certain time we should have to close the matter.

The PRESIDENT: The invoices that he sends are old, and there is poison in a good many of them. He evidently did a good deal of business in drugs. I think we should take a favourable view of his case if we can.

Mr. WELLS: The difficulty that I see is that we have rejected about 150 others on the same grounds.

Mr. CONYNHAM: He is really a grocer. Every country shop in the North of Ireland that sells a hundred pounds' worth of stuff keeps these things. They have no pretensions to be called druggists. If he were really a druggist he could have produced this proof long ago.

Mr. MONTGOMERY suggested that the case should be referred to the Belfast committee for further inquiries.

An order in the terms of Mr. Montgomery's suggestion was made.

NO QUARTER.

A report of the Law Committee recommended that there should be no remission of the fines imposed in the late Dublin prosecutions.

In connection with this subject Mr. G. Lane McCormack, L.P.S., of Monkstown, Dublin, wrote strongly protesting against any remission of the fines. He said the Council had no power to reduce the penalty of 5*l.* imposed under section 30 of the Act of 1875. If there were any remission of the fines he would draw attention to the matter at the annual meeting. The Privy Council, he said, took a very questionable step in remitting fines in a previous case some time ago, and he held that it would be very unjust to entertain the request of merchants who held high heads when others who were in a different position had been made to pay.

The report was adopted.

DONATIONS WERE RECEIVED

from the Pharmacy Board of New Zealand of a copy of the Pharmaceutical Register of New Zealand for 1893 and of copies of examination papers.

On the motion of Mr. LYONS, seconded by Mr. GIBSON, thanks were voted to the donors.

DISPENSING-CERTIFICATES.

On the reading of a report from the Certificates Committee,

Mr. DOWNES moved that a decision of the committee disallowing the claim of Mr. John Rooke to be permitted to present himself at the examination for Pharmaceutical Assistants be reconsidered. His certificates showed that he had had seven years and eleven months of dispensing experience. He put in two years and five months with Mr. Strahan, who was a registered chemist and druggist of Great Britain, and who dispensed prescriptions while Mr. Rooke was with him. Afterwards he was for two years and two months with Mr. Gamble, pharmaceutical chemist, of Bailieborough. He spent eight months with Mr. Mannin, pharmaceutical chemist, and he had been seven and a half months with him (Mr. Downes). He was also for two years and a month with Messrs. J. & T. McMurray, but one partner of that firm was unqualified at the time. The difficulty in Mr. Rooke's way was that he had put in portions of his time with two employers who were technically not entitled to give certificates.

Mr. BAXTER seconded the motion.

Mr. WELLS said it would be laying down a dangerous precedent to accede to this motion. Mr. Strahan was keeping open shop in Ireland, not being entitled to do so, at the time Mr. Rooke was with him. The Council afterwards found out what Mr. Strahan was doing and stopped him. They were now asked to recognise the certificate of a man who was acting illegally. The motion, he submitted, was contrary to the Act of Parliament, and therefore out of order.

Mr. CONYNHAM: It would only take Mr. Rooke seven months to complete his time legally.

Mr. WELLS: If this motion is acceded to, we shall in future have to accept the certificates of English chemists and druggists who start here.

The PRESIDENT said that this young man had some justification for serving his time to Mr. Strahan, because another person had been doing the same thing as Mr. Strahan in Cork for sixteen or seventeen years.

Mr. WELLS: The Council knew nothing about it. If you were brought into the Queen's Bench for the purpose of compelling you to accept such a certificate, the Court would tell you that the man who gave it had no legal status.

Mr. TURKINGTON said it was not the fault of Mr. Rooke that he spent his time with a man who was illegally keeping open shop.

Mr. LYONS: There are dozens of cases of young men who have served their time to persons not legally entitled to dispense prescriptions. I had two young men who came to me, because they said the Society would not recognise the men they were with.

The PRESIDENT then put Mr. Downes's motion. There were 5 votes for and 5 against it.

The PRESIDENT said, the decision of the matter being left to him, he felt obliged to vote against the motion. It was not a case of hardship, however, for the young man was with Mr. Downes, and would be able to go in for the examination in six months more. He (the President) would have been glad to be able to meet his case if he could.

Mr. HODGSON said that in voting against the motion he also had been influenced by the consideration that Mr. Rooke, by remaining with Mr. Downes, would be able to qualify himself for the examination in a few months more. If the Council had acceded to the motion they would have made a precedent which might hereafter place them in an awkward position.

WIDOWS OF CHEMISTS AND DRUGGISTS.

Mr. TURKINGTON moved, pursuant to notice, a resolution to the effect that the widows of chemists and druggists and registered druggists be admitted to the benefits of section 32 of the Pharmacy Act (Ireland), 1875, which provides that on the decease of a registered pharmaceutical chemist "his executor, administrator, or the trustee of his estate" may continue his business, provided it be *bonâ-fide* conducted by a duly qualified assistant, being a pharmaceutical chemist. He submitted that this motion ought to commend itself to the sympathies of every member of the Council. As the clause originally stood in the Act it con-

tained the words "pharmaceutical chemist or chemist and druggist," but section 4 of the Pharmacy (Ireland) Amendment Act, 1890, repealed the words "chemist and druggist" in section 15 of the principal Act, and in all other provisions of that Act, section 32 inclusive, which empowered the Pharmaceutical Society to create a grade of chemists and druggists legally qualified to dispense prescriptions. But as section 23 of the Amendment Act provided that it and the principal Act should be read together, and construed as one Act, he contended that, according to the spirit of the two Acts, the widows of chemists and druggists and registered druggists were entitled to the benefit in question. They were subject to all the penalties imposed by the amended legislation, and therefore they ought to participate in all the advantages. As matters at present stood, on the death of a chemist and druggist, or of a registered druggist, his widow could not carry on his business, so that it had to be put an end to, and the stock and fixtures generally realised very little. This was a great hardship upon the class of persons to whom he referred.

The PRESIDENT said that this matter had been already considered by the Council. He himself on a former occasion brought forward a resolution very much on the lines of that now submitted by Mr. Turkington. It was referred to a select committee; but they arrived at the conclusion that it would be impossible to do what Mr. Turkington wanted without an amendment of the existing Acts. If such an amendment were brought forward, Mr. Turkington would find no opponents to it in the Council.

Mr. BOYD suggested that a legal opinion should be taken for the purpose of ascertaining with certainty whether, on the construction of the existing Acts, Mr. Turkington's proposition was feasible.

The PRESIDENT: We shall be in conference with Mr. Clay next week, and we will ask his opinion.

Mr. DOWNES considered that the privilege enjoyed by widows of pharmaceutical chemists should, if possible, be extended to widows of chemists and druggists and registered druggists. When the matter first cropped up his impression was the same as that of Mr. Turkington—that the repealing section of the Amendment Act was not operative to such an extent as to exclude the class in question from the particular benefit given to pharmaceutical chemists' widows by the principal Act. The desired end might be attained by the Council passing a resolution to the effect that in the event of the widow of a chemist and druggist, or of a registered druggist, carrying on the business of her deceased husband with the aid of a qualified assistant they would take no legal step against her. They should, if possible, protect her to the extent of saving her from being obliged to shut up shop.

Mr. BOYD: Mr. Turkington and I would prefer that to any legal opinion.

Mr. BAXTER said he thought it would be competent to the Council to pass such a resolution as had been suggested. According to his reading of the sections of the Acts, the widows of chemists and druggists and registered druggists could not be otherwise protected from the hardship to which they were at present liable. The administration of the Acts was in the hands of the Council, and they could suspend or promote prosecutions as they pleased.

Mr. WELLS: How could you pass such a resolution? It would be contrary to your Acts of Parliament; these say that the persons referred to cannot do certain things, and yet you want to say, "We will allow them to do so." Mr. Wells referred to section 15 of the Pharmacy (Ireland) Amendment Act, which prohibits any unregistered person from using the titles of "registered druggist" or "chemist and druggist" under a penalty not to exceed 5*l*.

The PRESIDENT: Let us pass a resolution and submit it to the Privy Council. If they reject it, we shall have done our best. But for us to knowingly wink at any breach of the Acts would be to stultify ourselves and put ourselves in a very false position.

Mr. CONYNGHAM: Let us ask counsel's opinion.

Mr. WELLS: The opinion of the Privy Council will be the best counsel's opinion you can get.

The PRESIDENT suggested that Mr. Turkington should withdraw his present resolution, and, in conjunction with Mr. Boyd and Mr. Downes, draft another to be moved on a future day.

Mr. WELLS: In England they are going to get an amendment of their Act to the effect that even the widows of pharmaceutical chemists shall only be allowed to carry on the business of their deceased husbands for a certain time.

Mr. TURKINGTON withdrew his resolution, and said he would prepare another for a future meeting.

ELECTIONS.

On the motion of Mr. WELLS, seconded by Mr. GRINDLEY Mr. John Tyrie Turner, 52 Upper Sackville Street, Dublin, was elected a member of the Society.

On the motion of Mr. HODGSON, seconded by Mr. WELLS, Mr. James W. Johnston, of Belturbet, was elected an associate druggist.

On the motion of Mr. CONYNGHAM, seconded by Mr. HODGSON, Mr. Patrick N. While, 19 Castle Street, Sligo, was nominated for election as a member of the Society.

On the motion of Mr. BAXTER, seconded by Mr. CONYNGHAM, Mr. Charles A. Wray, of Magherafelt, was nominated for membership of the Society.

Some other business having been disposed of, the Council adjourned.

EXAMINATIONS.

Preliminary Examination.

Carleton, G. H.	McEvoy, J.
Cherry, J.	O'Sullivan, David
Dunwoody, W. J.	Sinclair, H.
Foster, T. L.	Stewart, D. N.
Francis, F. P.	Whelan, J. A.
Irwin, T. G.	Wilson, J. R.

have passed.

Six candidates have been rejected.

Pharmaceutical Licence Examination.

Coghlan, P.	Swayne, H. A.
Gordon, H. V.	Taylor, I. S.
Railey, T. J.	Wagh, G. H.

have passed

Seven candidates have been rejected.

EXAMINATION FOR LICENCE.

July, 1893.

PRACTICAL PHARMACY.

MR. T. W. ROBINSON.

1. Enumerate the preparations of jalap. State how each is made, and give dose.
2. What is ergot? Name its preparations, and state how they are made.
3. Write the formula and directions for preparing pil. hydrarg. subchlor. pil. galban. co., pil. scammon co.
4. State the quantities of citric acid, tartaric acid, and lemon-juice required to neutralise respectively 1 drachm of each of the following:—ammon. sesquicarb., potass. bicarb., potass. carb., sodii bicarb., sodii carb.
5. Under what conditions are the tinctures of aconite, cantharides, and ergot sold to the public?

MATERIA MEDICA.

R. J. MONTGOMERY, M.A., F.R.C.S.I.

Three of the materia medica, two of the botany, questions to be answered.

1. Name the official stearoptenes, and give the B.P. definitions, characters and dose of each.
2. Citric acid: give the B.P. definition, characters, and tests.
3. Name and give the characters and tests of the animal secretions introduced into the B.P.
4. Enumerate and describe the bodies which enter into unguentum veratrina.
5. Cubeba—Give the B.P. definition, characters, test, dose, and preparations.

BOTANY.

1. Give an accurate botanical description of *Cytisus scoparius*.
2. Or of *Hyoscyamus niger*.
3. State the characters of the Ranunculaceae family.

CHEMISTRY.

DR. NINIAN FALKNER.

General.

1. By what methods are the atomic weights of the elements determined?
2. What is the percentage composition of carbon dioxide?

[C = 12; O = 16.]

3. Enumerate the group of metals known as the halogens, giving their principal chemical analogies.

4. What is an alcohol? Give a general method for the preparations of these bodies.

5. What is the formula of urea? How may it be quantitatively estimated in a solution?

Pharmaceutical.

1. What is the formula for ferrocyanide of potassium? How does it react with the following substances?—

(a) H_2SO_4 , strong; (b) H_2SO_4 , dilute; (c) CaSO_4 ; (d) FeSO_4 ; (e) Fe_2Cl_6 ; (f) albumen.

2. How is ethyl nitrite prepared? Give formula.

3. How is salicylic acid prepared? What are the distinguishing tests for this radical?

4. How does HNO_3 react with the following?—1, Fe; 2, Zn, dilute; 3, Au; 4, Sb; 5, Cellulose; 6, Glycerine; 7, HCl.

5. How are the various salts of zinc obtained from the metal?

Practical.

Box I.—Contains two bases and one acid radical.

Box II.—Contains an organic acid.

Box III.—Contains an alkalioid.

Bottle I.—Contains a solution of———. Estimate the number of grains per fluid ounce.

PRELIMINARY EXAMINATION.

July, 1893.

ENGLISH GRAMMAR AND COMPOSITION.

E. MACDOWEL COSGRAVE, M.D., F.R.C.P.

1. Distinguish between the following, explaining what each means:—

(a) Only he lost his child.

(b) He lost his only child.

(c) He lost only his child.

(d) He lost his child only.

2. Write down the feminine forms of *marquis*, *hero*, *wizard*.

3. Correct the following sentences:—

(a) She was only allowed to occupy the smaller house.

(b) I object to you doing it.

(c) Him and me has took a box.

(d) The reputation of many writers depends on the critics.

(e) They each followed in their turn.

4. What is meant by the *voice* of a verb, an *intransitive* verb, a *strong* verb? Write the following sentence in the passive form:—"The master scolded the boy."

5. Compare the following adverbs:—*far*, *much*, *well*, *scarcely*.

6. Write an essay on one of the following subjects:—

(a) Pain.

(b) Bicycling.

(c) Newspapers.

LATIN.

E. MACDOWEL COSGRAVE, M.D., F.R.C.P.

1. Translate either of the following passages:—

(a) Corripuere viam interea, qua semita monstrat.
Iamque ascendebant collem, qui plurimus urbi
Imminet, adversasque aspectat desuper arces.
Mittitur molem Aeneas, miraglia quoniam
Miratur portas, strepitumque, et strata viarum.
Instant ardentes Tyrii; pars ducere muros,
Molirique arcem, et manibus subolvere saxa;
Pars optare locum tecto, et concludere sulcos.

VIRGIL.

(b) Caesar hac oratione Lisei Dummorigem, Divitiaci fratrem, designari sentiebat; sed, quod pluribus praesentibus eas res iactari volebat, celeriter concilium dimittit, Liscum retinet; quaerit ex solo ea, quae in conventu dixerat. Dicit liberior atque audacius. Eadem secreto ab aliis quaerit; reperit esse vera.—CAESAR.

2. Give the principal parts of the verbs in italics.

3. Write in Latin:—11, 23, 37, 86, 2nd.

4. Of what gender are nouns of the fourth declension? Give exceptions.

FRENCH.

(Optional subject.)

E. MACDOWEL COSGRAVE, M.D., F.R.C.P.

1. Translate into English:—

Un chien tenant un morceau de viande, traversait une rivière; il vit son image dans l'eau, et crut d'abord que c'était un autre chien qui portait une autre proie; il approche, l'image s'approche aussi: Tu ne me tromperas pas, dit-il, je ne quitterai pas ce que je tiens; mon instinct me dit que tu n'es qu'un mon ombre.

Imitez la prudence du chien, et ne quittez jamais la substance pour l'ombre.

2. Give the French for the following:—1, 2, 5, 9, 11, 12, 13, 18, 20.

3. Translate into French:—

He is poor, but he is honest. My brother is as amiable and clever as yours. Yes, I have seen your pens, but I have not seen their books.

ELEMENTARY PHYSICS AND MECHANICS.

(Optional subject.)

E. MACDOWEL COSGRAVE, M.D., F.R.C.P.

1. What is meant by atmospheric pressure? What does it amount to, and how does it vary?

2. Mention some ways of freezing water.

3. What are the different ways in which heat can be transferred from one body to another?

4. How can you show that solid bodies conduct sound better than gases?

5. Give examples of (a) chemical action of an electric current; (b) magnetic action of an electric current.

BOTANY.

(Optional subject.)

E. MACDOWEL COSGRAVE, M.D., F.R.C.P.

1. Mention the chief uses of the following parts of plants:—(a) roots; (b) leaves; (c) stamens; (d) corolla.

2. Why does a tree fall and gradually die if clay is heaped up round its trunk?

3. Describe the flower of a buttercup, giving the number of each part and the relations of the whorls one to another.

4. What is the source of the carbon of a plant's food?

CHEMISTRY.

(Optional subject.)

E. MACDOWEL COSGRAVE, M.D., F.R.C.P.

1. What is the composition of water? How can this be shown by (a) analysis; (b) synthesis?

2. What is SO_2 ? How can it be formed, and what are its properties?

3. How can carbon dioxide be obtained in the liquid and in the solid state? What peculiar properties do this liquid and solid exhibit?

4. Give three methods of preparing oxygen.

5. Explain the following terms:—acid, salt, molecule, allotropic.

Personalities.

DR. C. E. BEAN has been appointed public analyst to the bounty-corough of Devonport, *vice* Dr. Odland, resigned.

THE Lord Chancellor has appointed Dr. William Bradley, L.A.H., to the Commission of the Peace for the county of Louth.

MR. ED. EVANS, JUN., returned from America last week per the s.s. *Teutonic*. He has made a prolonged trip through Western Canada and British Columbia, afterwards visiting the Western States of America, and returning *via* San Francisco and Chicago.

MR. JOHN PENNY, of Great Broughton, Cumberland, who served his apprenticeship with Mr. Mason, chemist, of Workington, and who, after studying at the South London School of Pharmacy, qualified as a chemist, has recently graduated at Edinburgh as Bachelor of Medicine and Master of Surgery.

MR. BERNARD C. ROBINSON, chemist, residing at Old Road, Heaton Norris, has had an unpleasant experience. He was walking along a road about 11 P.M., when a woman pushed violently against him and then made off. A few minutes later he discovered that his purse, containing three 5*l.* notes, four sovereigns, and other money, was missing. He immediately gave chase, but did not succeed in overtaking the woman.

SOCIETY OF CHEMICAL INDUSTRY.

ANNUAL MEETING.

THE annual meeting of this Society was held in the Victoria Buildings, University College, Liverpool, on Wednesday afternoon. Sir John Evans, K.C.B., F.R.S., the President of the year, occupied the chair, and with him on the platform were several of the leaders of the Society. Sir John was received with cheering. He occupies the position, we may explain, on account of his connection with paper-manufacture, while his long association with the Royal Society, of which he is President, is due to his reputation as a numismatist. Fully 350 members gave Sir John a hearty reception, and after a welcome by the Lord Mayor,

THE REPORT OF THE COUNCIL

was read by Mr. C. G. Cresswell (Secretary). This stated that the number of members on the register is 2,784, as compared with 2,782 last year. During the year 208 new members have been elected, and 206 have been removed by death, resignation, and other causes. During the session 74 original papers have appeared in the Journal, precisely the same as last year. Owing to the excess of revenue over expenditure, the Council has increased the grant towards the expenses of the annual general meetings by 50%. In February last a committee was formed to consider the whole subject of the Patent Laws. Several meetings of the committee have been held, and it is in contemplation to lay before the Sections during the autumn a series of questions embodying the objections which have been raised. Should their deliberations lead to agreement as to the course to be pursued, the Council then proposes, if possible in conjunction with other public bodies, to petition the Government for the appointment of a Royal Commission.

The Treasurer's report showed the revenue was mainly derived from subscriptions (2,528) which yielded 3,181*l.* 5*s.* and 60*l.* for life composition fees, while the Journal yielded 854*l.* 1*s.* 3*d.* for advertisements and sales, and investments produced 145*l.* 16*s.* 1*d.* of interest. The cost of producing the Journal was 2,642*l.* 2*s.* 11*d.*, and other expenses (including secretarial and office expenses), brought up the expenditure side to 3,590*l.* 10*s.*, thus leaving a balance of 590*l.* 12*s.* 4*d.* on the year's transactions, or about 40% more than in the year preceding. It may be mentioned that the Society has seven Sections and these cost altogether 213*l.* 7*s.* 2*d.* during the year—London, with 56*l.* 2*s.* 8*d.*, being the highest, and Nottingham, with 10*l.* 13*s.* 5*d.*, the lowest. The Society has at present 4,476*l.* 9*s.* 2*d.* invested in Metropolitan 3-per-cent. Consolidated Stock, and cash balances amounting to 1,203*l.* 18*s.* 3*d.* Mr. E. Rider Cook, as Honorary Treasurer, submitted this report and briefly commented upon the improving condition of the Society.

On the motion of Mr. E. Carey, Secretary of the United Alkali Company, seconded by Colonel Gamble, the reports were adopted.

Sir John Evans then proceeded to deliver

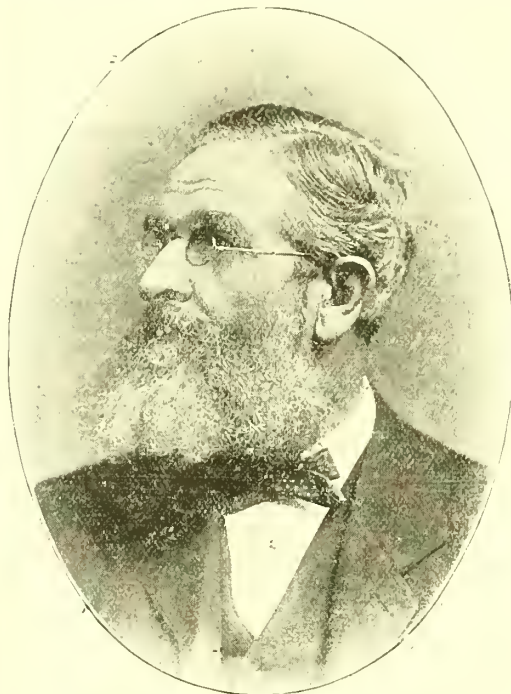
THE PRESIDENTIAL ADDRESS.

In opening his address the President referred to his distinguished predecessors in the chair, and disclaimed any special fitness, so far as chemical attainments are concerned, for his acceptance of the position. It was his hearty and entire appreciation of the work and aims of the Society that was the prime mover in the case. He firmly believed that it was only by such cordial co-operation among the different industries of this country as that which the Society has inaugurated that the commercial position of Great, or Greater, Britain would be maintained; and the more fully the interdependence between one branch of manufacture and another is recognised and acted upon, the more likely would be maintained our place in the keen race of competition with other countries.

PAPER-MANUFACTURE.

Speaking of the application of chemistry to industrial processes, Sir John mentioned that when, upwards of fifty years ago, he began to learn the art and mystery of paper-making in John Dickinson & Co.'s works, it was recognised that some knowledge of chemistry was requisite, but the methods used

were of the rudest, and it was only as years rolled by that a thorough knowledge of chemical laws became a *sine qua non* for success in the industry. Then—i.e. in 1840—rags were the staple paper material, but they were principally used for producing the highest class of printing-papers; linen and cotton waste were used in large quantities, and were brought from Dundee, Belfast, Bradford, Leeds, and Manchester. At Manchester Sir John's firm had a mill, in which the cotton waste was cleaned, boiled, and converted into what is known as "half-stuff," which was finally bleached and made into paper at their Hertfordshire mills. In that county was another "half-stuff" mill, at Rickmansworth, where the linen-waste was treated. The boiling was carried on in open keirs, or such as were partially closed, and always at a low pressure, as high-pressure boilers for such materials were practically unknown. Most of the waste was twice boiled, first with caustic lime, and secondly with a small amount of



SIR JOHN EVANS, K.C.B., D.C.L., LL.D., Sc.D., Tr.R.S., F.C.S., &c.

soda. The "shieves," or woody particles, that were unreduced by the boiling were got rid of by a long process of screening, or "devilling," after the "half-stuff" had been dried so far as possible in hydraulic presses. The material was then bleached in stone chambers by the direct action of chlorine gas, produced on the spot in retorts. At the mills, however, where the "half-stuff" was converted into paper, the remains of the chlorine had to be washed out, and the final bleaching of the stuff to be effected with bleaching-salts.

No process for the recovery of the soda used in boiling was then known, and, indeed, the quantity used was so much less than that which is now necessary with esparto that it would not have paid to recover it. He remembered being engaged in some experiments for the recovery of the manganese from the spent liquor of the retorts. Even when first Mr. Routledge introduced the use of esparto fibre no evaporating or recovery process was employed, but the double advantage was soon seen of avoiding the nuisance of polluting the streams into which the waste liquors were allowed to flow, and of regaining a quantity of soda at a small cost. With the general adoption of esparto as a material a radical change in the manufacture of paper was effected, and the difficulties in which the industry had been placed by reckless commercial legislation with regard to foreign rags in a great degree removed.

What has taken place in the manufacture of paper has been paralleled in numerous other departments of commercial enterprise, and not the least in those connected with the

manufacture of chemical products themselves, in many—if not, indeed, in most—of which a complete revolution has been effected within the last fifty years, or even less.

HALF-A-CENTURY'S PROGRESS

in theoretical chemistry was then lightly scanned by the President, who taking Brande's "Elements of Chemistry," published in May, 1841, as his text, called to mind the names of chemists which were then household words, and the position and number of the elements. He showed how the symbols of elements had changed, as well as their atomic weights; Po stood for potassium, So for sodium and Urm for uranium. The atomic weights were mainly whole numbers, in many cases about half what they are now; and he confessed, as a somewhat profane outsider, that it would be a source of satisfaction if future investigations should show that the figures now having three or four places of decimals attached to them might more properly be converted into integers, and oxygen come out boldly as 16, and sulphur as 32. But the changes and advances in inorganic chemistry have not been extreme. It is in organic chemistry that what cannot be regarded as anything short of a revolution has taken place.

In Brande's day, 367 pages sufficed for organic chemistry, and 1,042 to introductory matter and inorganic chemistry; but to-day, while three volumes of Roscoe and Schorlemmer's "Chemistry" are devoted to the inorganic, six have been published on organic, and there are more to come. All this advance is not more remarkable than the extension of chemistry into the domain of physics on the one side and biology on the other. In this connection the President referred to the work of Lockyer and Huggins in spectrum-analysis, and spoke of the possibilities which are laid open through the application of electricity. He then showed how the study of heat had revolutionised the manufacture of steel, and now the study of the absence of heat,

"GLACIAL CHEMISTRY"

he would term, had enabled Professor Dewar to do wonders by cold alone which had never been dreamt of. What may be the ultimate result of the investigations that can now be carried on at temperatures ranging from 100° to 200° Centigrade below the freezing-point of water it is impossible to foresee. From researches already made in this country and in France, it would appear that most substances under extreme cold are, so to speak, dead, and that their ordinary affinities are in abeyance. Possibly glacial chemistry may eventually enlarge our views as to the various properties of matter. The President then touched upon the influence of chemistry upon photography, the introduction of artificial light (gas was experimentally used in Pall Mall in 1807, but it was not until 1842 that it found its way to Grosvenor Square and other aristocratic quarters of London), the future of electric lighting, and gas as a source of power; while the progress of metallurgy, the manufacture of guns, and the influence of the periodic law were topics for brief comment. Turning to

ORGANIC CHEMISTRY,

Sir John spoke of Perkin's discovery of mauve in 1856, and the abundant harvest of artificial colours which has followed since. But from the artistic point of view he did not regard these as an unmixed blessing: they are much too fugitive, and the problem of making them as permanent as natural colours is one which has yet to be solved by chemists. Not only colouring-matters but our flavours and scents have been synthesised, though Art, if superseding Nature for a time, must eventually acknowledge her inferiority even in pears-drops. Whatever our æsthetic feelings under these circumstances may be, we cannot but admire the skill and scientific energy by which such results have been attained. How far "saccharine" is likely to supersede the use of ordinary sugar is a question on which he declined to speculate. The manufacture of our every-day sugar has, however, itself undergone a complete metamorphosis within the last fifty years, with the result that it is now produced at what would formerly have been regarded as an absolutely impossible price. In 1840 beet-sugar was in its infancy; now, owing to improvement in the growth of the beet and the process of manufacture, nearly twice the weight of sugar is produced from the root as there was at that date. In

the production of cane-sugar also immense economies have been effected, especially in the process of evaporation. Speaking of the study of fermentation, the President showed how it had gradually led to the formation of a new branch of science—bacteriology—and a more general acceptance of the germ-theory of disease, following which much good has been done to man and animals by the process of obtaining immunity from disease by the introduction of the attenuated bacillary poisons or ferments which produce such diseases. In Listerism we have a further practical application of the knowledge gained by the study of fermentation. Mention of pathogenic micro-organisms led Sir John to introduce the subject of

SEWAGE.

Now that so many diseases have been traced to pathogenic organisms which are constantly present in water contaminated by sewage, the question of the vitality of these organisms and their germs has been rightly regarded as one of great public importance, and the Royal Society, in conjunction with the London County Council, has instituted an investigation into it, which is being diligently prosecuted both from the botanical and the chemical points of view. Much has been done of late years by chemists towards the purification of sewage with the view of rendering the effluents from the ultimate drains as innocuous as possible, and the results obtained have been in many instances satisfactory. They would, no doubt, have been more so had not the imperative demands of economy limited the cost. Still, whatever may be done, there is much truth in the metrical abstract of a paper read some years ago before the Royal Society:—

Sewage, however disinfected,
Is not from ill results protected :
Though made to all appearance pure,
It still remains, not safe, but sewer.

Sir John, having briefly referred to the utilisation of sewage as a fertiliser, mentioned the services which have been rendered to agriculture by Sir John B. Lawes and Dr. Gilbert, concluding with warm thanks to Liverpool for the hearty reception given to the Society.

Professor J. EMERSON REYNOLDS, ex-President, moved, and Professor CAMPBELL BROWN seconded a vote of thanks to Sir John Evans for his address, and this was accorded with acclamation.

NEXT YEAR'S OFFICERS.

The formal business of scrutinising the voting-papers was then performed, and it resulted in the adoption of the official list, the following being the officers for next year:—

President:

E. C. C. Stanford, F.I.C., F.C.S.

Vice-Presidents:

Sir F. Abel, Bart.
Horace Brown, F.R.S.
H. Brunner
Wm. Crowler
Sir John Evans, F.R.S.
Dr. F. Harter
E. K. Muspratt

Dr. W. H. Perkin, F.R.S.
Prof. J. Emerson Reynolds, M.D.,
D.Sc., F.R.S.
John Spiller
Prof. T. E. Thorpe, F.R.S.
Sir John Turney

Ordinary Members of Council:

J. B. Allott
R. Forbes Carpenter
Prof. F. Clowes
Dr. Charles Dreyfus
Thomas Fairley
Prof. G. G. Henderson
C. Clarke Hutchinson

R. Irvine
John Pattinson
Manning Prentice
Boverton Redwood
Thos. Tyrer
Frank Wilson

And the Chairmen and Secretaries of Sections.

Honorary Treasurer:

E. Rider Cook, East London Soapworks, Bow, E.

Honorary Foreign Secretary:

Ludwig Mond, F.R.S.

A hearty invitation for the Society to visit Edinburgh next year was given by Mr. E. C. C. Stanford on behalf of the Scottish Section, and it was accepted. After votes of thanks had been passed all round, the members sauntered through

the College buildings inspecting the chemical laboratories, which were scarcely in a completed state the last time the Society visited Liverpool.

OTHER SOCIAL EVENTS

comprised a reception and *soirée* in the Walker Art Gallery on Wednesday night. The members were received by Mr. Henry Brunner, Chairman of the Liverpool Section, in the Fountain Room, between 8 and 8.30. In the course of the evening instrumental music was rendered by the Bijou Naval Orchestra and the Euterpean Orchestra. A novel and popular feature of the evening's entertainment was two hours' dancing between 9.30 and 11.30. The permanent and Roscoe collections of pictures in the galleries were greatly admired, and the visitors felt that Liverpool had again put the standard of enjoyment at these annual meetings up a peg. The annual dinner was fixed for Thursday evening in the Adelphi Hotel, after the members had been entertained by Brunner, Mond & Co., at Northwich, and on Friday evening a smoking-concert was to be held after the visitors had returned from the Manchester Ship Canal. The programme of excursions was an exceedingly full one, but we must reserve reference to them until next week.

Trade Notes.

MESSRS. RAIMES & Co., of York, have issued the first number of a new monthly prices-current. It is conveniently arranged, neatly printed, and bound in illuminated paper covers. In addition to drugs and chemicals, the list contains prices of packed goods, sundries, and special preparations.

In the *Lancet* of July 1 Dr. Bruce Clark, F.R.C.S., assistant-surgeon to St. Bartholomew's Hospital, narrates his experience with izar as an antiseptic in the treatment of wounds. He used it for sponges, gauze, &c., in diluted form—1 to 200. From his practical experience of the article, Mr. Bruce Clark has "no hesitation in saying that the antiseptic in question seems likely to prove more efficacious practically than any at present known. Its behaviour under all circumstances must be submitted to the test of a more lengthy experience before one can be in a position to predict that exact place which it is destined to take amongst the antiseptic fluids of the future. One thing, however, is certain—viz., that the surgeon will rejoice to hear that at last an antiseptic has been found which is easy to use, does not irritate his own hands or his patient's skin, and is at the same time by far the most powerful with which he is yet acquainted."

MESSRS. REECE & Co., chemists, 168 Piccadilly, having obtained permission to present some lavender-water and eau de Cologne to the Princess May as a wedding-gift, sent



these to her in two very handsome cut-glass bottles as represented in the engraving. The bottles were cut expressly for this purpose by Messrs. H. Gilbertson & Sons.

THE LATE MR. JOSEPH SIDNEY LESCHER.

IN our last issue we recorded briefly the death, on Wednesday last, July 5, at Elm Tree House, Hampstead, of Mr. Joseph Sidney Lescher, the senior partner in the firm of Evans, Lescher & Webb, wholesale druggists, of 60 Bartholomew Close, E.C., and the father of Mr. Frank Harwood Lescher of the same house. Mr. J. S. Lescher, who was 89 years of age, was, next to Mr. Arthur Stephen Hill (who still lives, in his 92nd year, at his house in Clapham Park), the oldest member of the London drug-trade and a well-known personality to all but the younger generation of druggists.

Joseph Sidney Lescher was born in London, where his father was a member of a well-known firm of starch-manufacturers, in 1803, and received his education at Ushaw College, near Durham. After leaving school, it was decided to bring up the young man to the drug-trade, and he was accordingly apprenticed, about 1819, to the firm of Jenks, Wheeler & Baildon, who, although nominally wholesale druggists, also dealt very extensively in tea, seeds, dry-salteries, hops, and spices, and whose travellers called upon many retailers of different trades. The number of crude drugs used was, however, much smaller than it is nowadays, and of the elegant modern pharmaceutical preparations there was not yet the slightest trace. After leaving Jenks & Co., Mr. Lescher became connected with the firm of Macmurdo & Pitheford, chemical-manufacturers, of Stratford, and it was while in their employ, in 1825, that he first heard the name of quinine. That occasion was one of the noted days in the young druggist's life, and he loved in after years to tell the story of how he called at the counting-house of Davy & Co., the wholesale druggists, for an account, and heard "Old Mr. Davy," now quite a legendary person, say that the new "essential principle" of Peruvian bark had been occasionally used with success by medical men, and was beginning to be inquired about by some of the up-to-date chemists, and that, perhaps, it might some day come into use to replace the bark. No more striking evidence of the commercial progress of the world can well be imagined than that there should still have been living among us a few days ago a man to whose mind the time was but as yesterday when quinine, cod-liver oil, and iodide of potash were utterly unknown; when it cost 8*d.* to send a letter to Bristol, 10*d.* to forward one to Durham, and 1*s.* 2*d.* was the franking-charge for a note to Edinburgh; when Saturday was one of the busiest afternoons on 'Change; and druggists' travellers scoured the country on horseback, carrying their samples with them in their saddle-bags.

Mr. Lescher remained successively with the two firms named for about ten years, and then decided to commence business for himself. His first independent appearance in the wholesale drug-trade was in 1828, when, in conjunction with Mr. John Evans, formerly of the firm of Stable & Evans, of London Wall, he opened a wholesale druggists' business at 62 Wood Street, Cheapside. Five years later the young firm established a branch in Liverpool, now known to fame in the drug-world as Evans, Sons & Co. Two years afterwards, however—in 1835—Mr. Lescher withdrew from the Liverpool branch, and from that period until the end of his mercantile life he devoted himself exclusively to the affairs of the London business. Mr. J. S. Lescher interested himself in pharmaceutical affairs from the outset of his career, and was a member of the committee formed at the "Crown and Anchor Tavern," Arundel Street, Strand, on April 15, 1841, from which the Pharmaceutical Society originated. The meeting was called ostensibly to protest against a Bill introduced into Parliament by a Mr. Hawes, and proposing to make the chemists a sort of trade subordinate to the medical profession, a proposal which encountered the strong opposition both of the wholesale and retail branches of the drug-trade, and was successfully resisted by them. Mr. Lescher sat for many years on the Council of the Pharmaceutical Society, along with Messrs. Jacob Bell, Squire, Morson, and others of honourable renown in the drug-trade, and continued to take an interest in pharmaceutical affairs until the end of his life.

Shortly before Mr. Lescher's withdrawal from the Liverpool firm, the London business had been transferred from Wood Street to 4 Cripplegate Buildings, E.C., where it con-

tinued to be carried on until 1845, when it was removed to 58-60 Bartholomew Close, a part of which was previously occupied as a private residence by Mr. Evans. In 1879 the Bartholomew Close premises were rebuilt and enlarged, but seven years before the beautiful Queen Anne house in which the business as now carried on arose, Mr. J. S. Lescher withdrew from active participation in the firm, and since that time he has lived in retirement in his Hampstead house.

Mr. Lescher had an interesting fund of reminiscences of his early days in the drug-trade, and only about two years ago he wrote for this journal (on the occasion of the jubilee of the Pharmaceutical Society) a sketch of the drug-trade in his young days, from which we extract the following paragraph:—

"Mr. John Evans, my first partner, came from the firm of Kempson, Yates & Co., and when he started in trade travellers still journeyed through the country on horseback, carrying their samples in their saddle-bags, while patent medicines were sold by booksellers. The wholesale drug-trade was very united at that time: there was a drug-club, where we used to dine together and discuss trade matters. Amongst other things, this led to the fortnightly drug-sales; and once, owing to brokers not agreeing to certain allowances, for months we abstained from bidding for castor oil. The leading men of the London retail chemists were: W. Ince, of Godfrey & Crooke, whom everybody liked; E. Winstanley, of Cheapside, whose business was afterwards taken by Corbys; Charles Dinneford, an able man; G. W. Smith, who became the first secretary of the Pharmaceutical Society; George Waugh, a man of fine appearance and a good speaker, but who did not like opposition to his views; and last, but not least, Jacob Bell, who was one of the leaders of the movement."

Mr. Lescher married, in 1835, a daughter of Mr. William Harwood, a merchant of Bristol, and leaves three sons and one daughter. The eldest son, Mr. Frank Harwood Lescher, has long been a partner in the London drug-business. After marriage Mr. Lescher went to live at Hampstead, a suburb with which his family had had some association for many years (an uncle of his lived at West End, Hampstead, at the close of the eighteenth century), and in that suburb Mr. Lescher continued to live for the greater part of his days, the house in which he died being only two doors off that in which his eldest son was born. The deceased gentleman was for many years a member of the Court of the Musicians' Company, and served several times as Master of that body. He retained to the last his mental faculties and his interest in social and business matters, and until very shortly before his death was able to sign papers in connection with the business of which he was the senior partner. Death ensued after a very short illness, and Mr. Lescher passed away peacefully and calmly without any suffering. It may be truly said of him that he was respected and loved by all his family and the large circle of his friends, and was a true type of the simple, pure-minded, and upright man. The deceased gentleman's funeral took place, on July 10, at Kensal Green Cemetery. Besides many members of the Lescher family there were present Mr. John Evans, of Liverpool; Mr. E. Alfred Webb, of the London house; Mr. Worthington Evans, and other friends. Many flowers were sent, including a beautiful cross from the employes of Evans, Lescher & Webb.

Bankruptcies and Failures.

Re FANNY MERRITT, Hyde Park Road, Southsea, Chemist.

THIS bankrupt attended for her public examination at the Portsmouth Bankruptcy Court, on July 10, before the Registrar (Mr. W. Renny).

In reply to Mr. W. F. J. Hunt (Assistant Official Receiver) bankrupt stated that she had carried on the business since the death of her husband, which occurred in January, 1890. The business at Southsea was started in November, 1882, and he subsequently opened a branch shop at 48 Kingston Road. That was in 1889, and it was continued until March of this year, when a fire occurred and the business was discontinued. The Southsea business was a success, and her

husband had made money there. At the time of starting, he had a little capital which he increased, and partly purchased some house property. He spent 150*l.* to fit up the Kingston Road shop. At the time of his death his liabilities were 560*l.*, and she considered he was solvent. He did not have the cash in hand, but taking what he had invested in property he was solvent. He was short of ready cash, and he had deposited the deeds of his property to obtain an overdraft. He had not completed that, and she did not think any memorandum of deposit had been signed. He left a will, but she was compelled to take out letters of administration as no executors were appointed. The business was left to her for life, and afterwards to her children. She had not dealt with the property at all, as she did not consider she could. She had got into arrears with the repayment of mortgages, and the amounts due were larger than at the time of her husband's death, and to that extent his estate had suffered. Although she had only a life interest in the West Street property, the secretary of the Portsea Island Building Society had advanced 200*l.* upon the deeds of the property. She arranged an overdraft, and in that shape the money was advanced. She did not consider it strange this amount should be advanced, as she thought the Society could consolidate the mortgages they held, and it now turned out they could. All the liabilities left by her husband had been paid, and it was to do that the overdraft was obtained. She had kept no cash-book, and she only had the receipts to show how the money was applied. Since the husband's death the business had not been profitable. The expenses had always exceeded the income. She had to employ a qualified man at a salary of 2*l.* per week. The Hyde Park Road business had deteriorated, and the Kingston Road shop had been a failure since it was opened. She did not close it, as she was always hoping to have been able to do something with it. The loss caused by the fire was quite 200*l.* The stock was insured in the County Fire Office for 300*l.*, and they paid 120*l.* She did not employ anyone to look after her interests, but she considered the Fire Office did not treat her fairly. She had not kept any profit-and-loss account or cash-book, and had no system of accounts to ascertain how she stood. The examination was closed.

Re GEORGE NEALE, Market Street, Baccup, Chemist and Druggist.

THIS debtor presented himself for examination at the Oldham Bankruptcy Court on Friday, July 7. He had been adjudged bankrupt some months ago, but had then absconded, the consequence being that he was afterwards arrested and lodged in Knutsford Gaol.

In examination by the Official Receiver (Mr. Hesketh Booth), the debtor stated that he commenced business about three years ago without any capital beyond a sum of 50*l.* which he had borrowed. His present liabilities were chiefly sums owing to relatives on account of loans. Debtor attributed his failure to severe competition in business, and "misrepresentation" in connection with the sale of a business which he had bought.

On undertaking to furnish a better deficiency account than he had sent to Mr. Booth, the debtor was allowed to pass.

Re WALTER BIGGS, 8 Queen Street, Oxford, late Chemist.

MR. MALLAM, the Official Receiver for the Oxford district, has issued particulars of this failure. The debtor, who is at present a bookseller, estimates his deficiency at 2,402*l.*, and attributes his failure to having to pay money under a deed of arrangement, to high rent, and to small profits owing to competition. He is 64 years of age, and the receiving order was made on his own petition. The debtor states that he was brought up as a chemist at Folkestone, was a chemist's assistant in London for some years, and afterwards carried on business as a chemist on his own account at Notting Hill and Hampstead for twenty years. In 1868 he failed, owing to his becoming surety for a friend, and paid 1*s.* 6*d.* in the pound, and in November, 1876, started business as a bookseller in partnership with a Mr. H. C. Spackman, having then a capital of about 2,000*l.* Mr. Spackman was paid out, and in 1889 the debtor executed a deed of arrangement, under which 6*s.* in the pound was paid. He believes he made no profit during the last three years of trading.

Re A. R. STOCKER, 29 Harvest Road, Hornsey Road, Holloway, Stopper Manufacturer and Patentee.

THIS bankrupt failed recently, with debts 1,719*l.* 9*s.* against assets 4*l.*, and on Wednesday last he attended before Mr. Registrar Linklater at the London Bankruptcy Court, for his public examination. Questioned by A. H. Wildy, Official Receiver, he gave particulars of his affairs substantially as reported last week. No creditors attended to oppose, and the bankrupt was allowed to pass.

Re WILLIAM HENRY WESTMORELAND, 7 St. Helen's Terrace, North Kensington, Chemist.

THE bankrupt attended before Mr. Registrar Linklater on Wednesday last at the London Bankruptcy Court, and applied to pass his public examination upon accounts showing unsecured debts 526*l.* 17*s.* 6*d.* against assets 55*l.* 16*s.*

In reply to Mr. Wildy, Official Receiver, he stated that he commenced business as a chemist in Mareh, 1889, at the above address with a capital of 440*l.* borrowed from his father. He purchased the business for 275*l.*, and applied the balance of his capital in restocking the shop. The money borrowed from his father was still owing. He attributed his insolvency generally to illness, which came on three months after he took the business, and necessitated the engagement of a stranger to manage the business for him. Another reason was that the business was in the vicinity of Wormwood Scrubs prison, which was about eighteen months ago converted into a "short term" prison, and thus depreciated the character of the neighbourhood. Witness throughout his trading had been aware of his inability to pay all his debts, and he admitted that he had contracted all his present liabilities with such knowledge in his mind. His expectation of meeting his engagements lay in the hope that the neighbourhood would improve, and that his business would correspondingly increase. It was true that the books of account did not disclose the whole of his creditors, and that they had never been balanced. This was his first failure.

There was no opposition on the part of creditors, and the examination was ordered to be concluded.

THE CHEMIST AND THE DOG.—At the Dublin Law Courts, last week, it was moved, on behalf of the directors of the Great Southern and Western Railway Company, to set aside a verdict for 100*l.* damages awarded recently to Mr. Mallon, manufacturing chemist, Dublin, for injuries sustained by being bitten by a terrier at Portarlington Railway Station. The case was tried before the Chief Justice and a jury, and resulted in the decision which it was now sought to set aside. Evidence having been given of the occurrence, the Court differed and set aside the verdict. Judgment was given accordingly for the defendants. The plaintiff gave notice of appeal.

HE WENT FOR HIS LUNCH.—Mr. Alfred Lonnon, a chemist's assistant, of High Cross, Tottenham, was a witness at the North London Police Court on Thursday, but when he was called he did not answer. The Magistrate, his clerk, a constable, indeed the whole Court were upset by this unheard-of proceeding, and they were speculating upon warrants, arrests, and setting the whole machinery of the law against Mr. Lonnon when he appeared. Then he and the Magistrate passed the compliments of the morning. Said the Magistrate: Why were you not here when the case was called on? Mr. Lonnon: I was here waiting for some time, and then went away to get my lunch. The Magistrate: Do you know that the Magistrate and entire staff of the court have been kept waiting for you whilst you got your cup of coffee and your smoke? Mr. Lonnon: I am very sorry, sir. The Magistrate: Sorry! That is the first expression of regret I have heard you make in the matter. I had a great mind to commit you for contempt of court. Mr. Lonnon: I would not have gone away had I known the case was so near. The Magistrate: I hope you enjoyed your luncheon. (Laughter.) Mr. Lonnon: Yes, sir; I had sufficient to satisfy me. The Magistrate: Now give your evidence in a proper manner. Which Mr. Lonnon did.

Business Changes.

MESSRS. HASSALL & Co., patentees of phospho-citric acid, have removed their works from King's Cross to Marshgate Chemical-works, Stratford.

MESSRS. GREGORY & WREN, of Taunton, have an elegant modern pharmacy in course of fitting, from designs by Messrs. Vale Brothers, Weston-super-Mare.

MR. MARTIN K. JOHNSON, for many years with Messrs. Hearon, Squire & Francis, has purchased the business of the late Charles Row & Co., chemists and druggists, of Fore Street, Devonport.

THE old-established business of Mr. Bienvenu, in St. Mary's Street, Southampton, known as "The St. Mary's Drug Stores," has lately been purchased by Mr. W. A. Clark, who commenced his study of the drug-trade as an apprentice with Mr. Bienvenu.

MR. WILLIAM ROBERTSON, pharmaceutical chemist, Elgin, N.B., has admitted into partnership his son Alexander, and the business will be carried on under the style of W. & A. Robertson.

MR. F. W. PLAYFORD, who for several years past has managed the Attleborough branch business of Messrs. James Robinson & Co., of Norwich, has purchased the business of Mr. W. Toogood Frost at 19 Burnt Ash Hill, Lee, S.E.

MESSRS. SPIERS & POND, in order to enlarge their drug-department, have acquired a large block of buildings in proximity to their stores at the Ludgate end of Queen Victoria Street, and, pending alterations, are holding a summer sale, the goods in the drug-department being marked down about 50 per cent.

MESSRS. LEATH & ROSS, homoeopathic chemists, will commence the erection of larger and more commodious premises than those they at present occupy at 9 Vere Street, W., on the same site, on July 25, and from that date they will for a few months carry on their business at 19 Holles Street, Oxford Street, W., a little nearer Regent Street than their present address.

Gazette.

PARTNERSHIPS DISSOLVED.

Taylor, J., and Rippon, C., surgeon-dentists, Dewsbury, under the style of Taylor & Rippon.

White, J., and Webster, F. P., under the style of James White & Co., oil and tallow refiners and grease manufacturers, china clay merchants, and drysalts, Widnes.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATIONS.

Burbie, James, late Litherland, Lancashire, now Liverpool: Burbie, Hugh, Liverpool; and Spencer, Edward, Levenshulme, Lancashire, and trading alone as Edward Spencer & Co., at the Openshaw Bridge Oilworks, Openshaw, Lancashire, oil merchant and refiner, carrying on business in co-partnership as Barbie Brothers at the Phoenix Lardworks, Liverpool, and as E. Spencer & Co., Birkenhead, late trading as Barbie Brothers and Edward Middleton & Co., Salford, oleo manufacturers and lard-refiners.

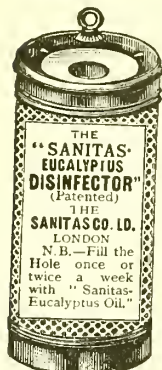
Doherty, John, Newport, dentist.

Heygate, William Harris, Cosham, surgeon.

Pitt, George (late trading as George Pitt & Co.), Airedale Cliff, Newlay, Yorkshire, now out of business, late gelatine, glue, and grease manufacturer.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Owen, Elizabeth Hensley (trading as John Owen, jun.), Colonial Avenue, Minories, E., and Northfield Road, Stamford Hill, N.W., packing-case manufacturer and office-fitter—discharge suspended for two years ending June 9, 1895.



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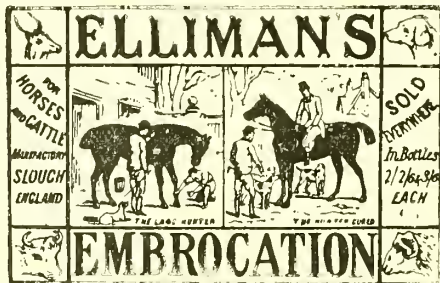
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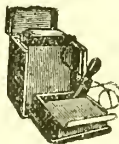
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British Medical Journal.

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WITH SIMILAR PREPARATIONS MADE EXACTLY ACCORDING
TO THE B. P. METHODS, AND WE FIND THAT THEY ARE
PRACTICALLY IDENTICAL IN CHARACTER."

Editorial Comments.

A PROBABLE CANADIAN
PHARMACOPŒIA.

IN Dr. Attfield's last report on the British Pharmacopœia the desirability of adapting that work or editions of it to Colonial requirements was expressly indicated. The justification for this anticipation has come very promptly from

Canada. At the twenty-third annual meeting of the Pharmaceutical Association of the Province of Quebec, held in Montreal on June 13, under the presidency of Mr. H. R. Gray, a report of which in the *Montreal Pharmaceutical Journal* has just reached us, there occurred a lively discussion in regard to tinctures which touched very closely the point raised by Dr. Attfield.

The "tincture-question" appears to have become almost a burning one among the pharmacists of the Province of Quebec of late. Under the Dominion Adulteration Act of 1885 some rather harsh proceedings seem to have been taken lately by the Montreal authorities against several druggists of that city. Notices have been served on a considerable number of them by the Department of Inland Revenue calling upon them to pay the cost of analysis for certain samples of tinctures sold by them to the Inspector of Food for the Province, which on examination were found to be adulterated within the meaning of the Adulteration Act. The costs in each case amounted to \$12. We have no definite information as to the nature of the adulteration alleged, for none of the cases seem to have been taken into Court, but we gather that in at least some of the instances the variation from the standard officially recognised depends on the embarrassment of riches in the way of Pharmacopœias which the peculiar character of the Province of Quebec has produced. "The Dominion of Canada is one of the brightest jewels of this great empire," says the *Montreal Pharmaceutical Journal*, sacrificing to some extent its modesty on the altar of its loyalty, and the writer adds, "The British Pharmacopœia is our standard." All the pharmacists who took part in the discussion on the tincture-question at the Association meeting admitted, either tacitly or expressly, that the British Pharmacopœia had the first claim on their attention. But it was pointed out that they had to dispense a considerable proportion of prescriptions which had been written in the United States, and that the situation was still further complicated by the circumstance that in a semi-French population like theirs the French Codex naturally maintained its authority among many prescribers.

The Dominion Adulteration Act makes a gallant effort, first, to establish a standard for drugs, and, secondly, to strike a fair balance between these not always compatible authorities. It provides that a drug shall be deemed to be adulterated if, when sold under a name recognised in the British or United States Pharmacopœia, it differs from the standard of strength, quality, or purity laid down therein; or if, when sold under a name not recognised in the British or United States Pharmacopœia, but found in some other generally recognised Pharmacopœia or other standard work on materia medica, it differs from the standard of strength, quality, or purity laid down in such work; and also if its strength or purity falls below the professed standard under which it is sold.

There is, it will be seen, no express provision for tinctures official in both the British and the United States Pharmacopœias under the same name but differing in strength or composition. Mr. Gray, in his presidential address to the Association, quoted two such instances, tincture of arnica and tincture of rhubarb. No one in Canada would think of supplying tr. arnica, B. P., which is made from the root and has no fragrance. What the public require is the tincture of arnica-flowers, which is official in the U. S. Pharmacopœia. Then, again, many doctors object to pay the high price of tincture of rhubarb when made according to the British Pharmacopœia, which, among other things, contains Spanish saffron, which they believe to be therapeutically inert. The United States tincture contains rhubarb, cardamoms and dilute spirit, and can be produced cheaper; and is what the physicians who

supply their own medicines to their patients sometimes require.

We judge that, according to the Act we have quoted, it is legal for a pharmacist to supply either the B. P. or the U. S. P. tincture when tincture of rhubarb is asked for and no kind is specified, but Mr. Gray surely goes a little too far when he declares that there is no law ordering him how to make his tinctures. The section we have quoted gives a statutory authority to the British Pharmacopœia which does not prevail in Great Britain. Here the British Pharmacopœia is fairly conclusive authority as to preparations prescribed in it, but it is only so by virtue of custom, and it is not made so by any specific enactment.

The discussion which followed the President's address showed a decided inclination in favour of a Dominion Pharmacopœia. Mr. Contant, an ex-President of the Association, urged that the Government should appoint a committee of doctors and druggists, who could go through the various Pharmacopœias and select what is best suitable for Canada from each; and ultimately a resolution, moved by Mr. H. F. Jackson and seconded by Jos. E. Morrison, was carried instructing the Secretary

to write to the various provincial Pharmaceutical Associations of the Dominion, with a view of obtaining united action in approaching the Federal Government, with a view of defining our position in relation to the Pharmacopœia to be used in this country, and also to get their views on the feasibility of forming a National Pharmaceutical Association on similar lines to the American Pharmaceutical Association; and that it be a recommendation to the new Council to take this important matter up for consideration.

The proprietors of the British Pharmacopœia—that is to say, the General Medical Council—will do well to meet this incipient revolt promptly by conceding to Canadian druggists and doctors the special edition of their publication which they evidently desire.

WIDOWS OF IRISH CHEMISTS AND DRUGGISTS.

THE Irish Pharmacy Act of 1875 contained a section (32) providing that it should be lawful for the executor, administrator, or trustee of the estate of a pharmaceutical chemist or chemist and druggist to continue his business after his death, with the aid of a qualified assistant. Section 19 of the same Act, however, declared that the provision, so far as it related to chemists and druggists, should only take effect after the publication in the *Dublin Gazette* of the notice of the approval of a resolution with respect to the title of "chemist and druggist." Section 4 of the Amendment Act of 1890 repeals all provisions of the 1875 Act "empowering" the Pharmaceutical Society of Ireland to create a grade of chemists and druggists legally qualified to dispense medical prescriptions." There is nothing in the 1890 Act authorising the executors of deceased chemists and druggists to continue their business. The consequence is that, as the law now stands, the executors of pharmaceutical chemists in Ireland may continue their businesses, while the executors of chemists and druggists and registered druggists may not do so. At the last meeting of the Irish Pharmaceutical Council the representatives of the chemists and druggists brought forward a motion advocating that the benefits of the Act should be extended so as to cover the executors of chemists and druggists as well as pharmaceutical chemists. The rest of the Council sympathised with the object of the motion but considered that they could only remedy the discrepancy by an amending statute. Some of them proposed to carry their sympathy to the extent of a resolution declaring that

the Council would wink at infringements of the law by widows of chemists and druggists. The wiser course of consulting their legal adviser was ultimately adopted.

The difficulty does not seem to us very great. The Act of 1890 does not expressly repeal the words in the latter part of section 19 of the 1875 Act. If the Council will agree to a resolution declaring that the executors of persons who shall have legally acquired the title of "chemist and druggist" shall be entitled to the privileges indicated in section 32 of the original Act, if the Privy Council will approve of such a resolution, and if it then be published in the *Dublin Gazette*, the object will be effected, and the law will have been observed strictly in letter and in spirit.

We are glad to add to this note a correction of the impression, which Mr. Wells mentioned, that there is any movement on this side towards an amendment limiting the time during which executors may carry on the businesses of deceased chemists. We are not aware that anybody contemplates any such wanton sacrifice of widows' property, and there certainly is no draft of any amendment of the kind before the trade. It has been suggested academically, it is true, but nobody has yet had the hardihood to deliberately propose it.

IPECACUANHA ROOT AND STEMS.

In another part of this issue we print verbatim Professor Attfield's long-expected report on the two ipecacuanha samples submitted to him by the President of the Drug Club. It will be remembered that at the last drug-sales in May two bales of Brazilian ipecacuanha were offered, of which Mr. R. A. Cripps certified that, notwithstanding the large proportion of woody stem which they contained, they tested respectively 2.40 and 1.94 per cent. of emetine. His certificate further asserted that the woody stems of one of the parcels yielded 1.70 per cent. of emetine against 2.10 per cent. found in the selected root. The wholesale druggists thought Mr. Cripps's analysis wrong and his conclusions erroneous, and they had samples of the identical bales certified by Mr. Cripps forwarded to Professor Attfield for independent examination. The learned Professor's report is of so beautiful and neutral grey a colour that one side might call it white with almost as much truth as the other could call it black. Still, upon looking closely into Professor Attfield's conclusions, and stripping them of the qualifications and suggestions in which they are wrapped up, they exhibit a slight but unmistakable leaning Crippswards.

Taking first the question of the percentage of emetine in the samples, the two analysts arrive at the following conclusions:—

	Whole sample	Root only	Stem only
SAMPLE A.			
Cripps. Per cent. ..	2.40 ..	Not stated ..	Not stated ..
Attfield. " " ..	1.95 ..	2.02 ..	1.89 ..
SAMPLE B.			
Cripps. Per cent. ..	1.94 ..	2.10 ..	1.70 ..
Attfield. " " ..	1.82 ..	2.00 ..	1.46 ..

In the discussion which arose at the public sales when Mr. Cripps's certificate was challenged on behalf of the Drug Club, one of the two spokesmen of the Club asserted distinctly that, as the result of his experience, the value of the stems from an emetine point of view, compared with that of the picked root as 60 to 100. Mr. Cripps's certificate gave the relative values of woody stem and picked root in his second sample as 81 to 100, and Professor Attfield now puts them, in the same sample, as 73 to 100. It must therefore be regarded as a settled thing that ipecacuanha-stems are by no means a practically valueless material, as they were supposed to be by nearly all commercial men and chemists until

the present controversy arose; on the contrary, so far as emetine is concerned, they are worth nearly 75 per cent. of the picked root. This fact, at any rate, Mr. Cripps has succeeded in establishing, and he is fully entitled to the credit that attaches to the observation. It will henceforth be just as reasonable to reject ipecacuanha-stems for emetine manufacture, or for making any ipecacuanha preparations excepting those of the Pharmacopœias which, like our own, distinctly prescribe the use of the root only, as it would be to reject all cinchona-bark derived from the branches of the tree instead of the trunk, or all opium not of the official strength, for manufacturing purposes. The differences in analysis between Professor Attfield and Mr. Cripps (assuming that both have used the same process of emetine estimation) may not unreasonably be ascribed to variations in the samples upon which they worked: for, though taken from the same packages, these samples contained unequal proportions of stem and root. In the second sample, for instance, Cripps found 57.2 per cent. of root and 42.8 per cent. of stem. Attfield 62.6 and 37.4 per cent. respectively. It may well be the case, therefore, that the samples differed in alkaloidal constitution also, there being no guarantee whatever that the root in one and the same bale is gathered from plants growing in the same neighbourhood or collected at the same time. Professor Attfield lays especial stress upon the fact that only the root of the plant may be used in the official preparations, and, waving off the unhappy stems, such as Mr. Podsnap was accustomed to dispose of inconvenient questions by refusing to recognise them, observes, "Ipecacuanha-stems have no official value; indeed, they have no official position." Strictly accurate, of course; but, now that they have seemingly established their claim to a fair percentage of emetine, it would appear to be a practical question whether the stems ought not to be admitted to official recognition. To be sure, the Professor adds that "we may be said to know nothing respecting ipecacuanha-stems," but now that whatever scanty evidence we do possess points distinctly to the presence of valuable properties in the stems, our knowledge on the subject is likely to be enriched pretty soon, especially as no scarcity of available working material is likely to arise. Would it not be well, for instance, if the eminent investigators who have spent so much valuable time in the Pharmaceutical Society's laboratory, in research work into aconitine and other substances of minor commercial importance, were for once to turn the search-light of their intellects upon one of the principal drugs known to commerce? Professor Attfield himself appears to have an idea of this kind, and to hint at it darkly in the concluding sentence of his report.

But it is not only on the subject of ipecacuanha-stems that we are still in pharmacological uncertainty; the question of the emetine estimation appears to be almost as much in want of authoritative elucidation. Here are some figures of the emetine value of ipecacuanha as given by various recent authors:—

		Per cent.
Ransom	Average of 10 samples (from 13 to 23)	1.66
Hooper	Root (E.L.)	1.79
"	Stem	1.13
"	Leaves	1.45
Cripps	" Good average sample "	2.1-2.2
Merek		1.5-2
Lyons		1.65-3
Arndt	Volatile alk. 0.3 <i>plus</i> emetine	0.6-1.1
Naylor		1.09
Braithwaite & Umney	Minimum standard	1.25
Keller	"Rio root "	2.57
Kottmayer	Singapore root	2.37
"	Cartagena root	2.22
"	Official ipecacuanha	1.81
Attfield		1.75-2

There is hardly any room for doubt that Mr. Cripps's figures of 2.1 to 2.2 per cent. as the average emetine-percentage of Brazilian ipecacuanha-root are too high. We understand that some German chemical-manufacturers, working by Cripps and Whitby's process, published in 1889, obtain, on an average, barely 1 per cent. of emetine from commercial ipecacuanha, while others, using the lime-process, obtain habitually from 1.8 to 2.2 per cent. The want of any simple method for obtaining crystallised emetine, and the consequent necessity of estimating it by weighing a precipitate containing emetine *plus* something of which we know little, no doubt accounts for much of the confusion which prevails.

So far as the commercial aspect of the case is concerned, there is undoubtedly some force in the suggestion which has been made that any "dead-set" at the present mode of importing the drug on the part of the buyers might result in the divergence of a portion of this valuable trade to continental markets; and, considering the apparently valuable properties of the stem, that would be an eventuality much to be regretted. Under the circumstances it is likely that the best policy will be to let the matter rest where it is until further researches into the constituents of the drug shall have yielded more definite results than we now possess.

CHLOROFORM EXPERIMENTS.

IT is difficult to retain our respect for physiology and pharmacology as at present practised in view of the disgraceful collapse of the long series of experiments by which it has been sought to discover the source of danger in the use of chloroform. We use the word disgraceful advisedly. It would not be appropriate in respect of an experiment which had simply not succeeded. The disgrace comes in in the repeated attempts of the professors of and apologists for the investigations to bolster up each new and contradictory series, as if all were brilliant triumphs. The facts are very simple. For many years experiments had been conducted on animals in the British licensed laboratories, and from these the deduction had been drawn that one of the principal dangers to guard against when chloroform was administered was its effect on the action of the heart. The same conclusion had been arrived at from clinical observation, but physiologists were bound to make the experiments, and they claimed that it was they who established the fact. In 1889 Surgeon-Major Lawrie at Hyderabad sacrificed a large number of pariah dogs, and believed he had discovered that none of them died by the action of chloroform on the heart. The Nizam of Hyderabad thereupon offered a thousand guineas if an English physiologist would go out there and make a new series of experiments. Dr. Lauder Brunton accepted the commission, and, after experimenting on 490 dogs, horses, monkeys, goats, cats, and rabbits, telegraphed home to say that there was no danger whatever from the heart direct: all came from asphyxia and overdose. This great discovery, it will be remembered, was hailed with rapturous enthusiasm. Those newspaper writers who knew least about the subject, told their readers that, thanks to the Nizam of Hyderabad's public-spirited generosity, the danger from anaesthetics was as good as over, and it must have been a great puzzle to them to find that deaths from chloroform went on at least as frequently as ever. Eighteen months later we quoted from a medical paper the comment that "ever since that ill-fated report of the Hyderabad Commission inspired us with the hope that these catastrophes might be avoided, deaths from this cause have been oppressively numerous." And now comes what ought to be the final condemnation of that monstrous game of science, falsely so-called, which the

physiologists and the Nizam played out at Hyderabad in 1889. The *Lancet*, although "fully aware of the immense importance of these reports, and recognising the value of one of the most thorough and painstaking physiological investigations into the action of drugs of modern times, yet felt the justice of the criticism advanced by many, whose experience gave their opinion considerable weight, that no investigation into the behaviour of ether and chloroform would be complete without thorough and exhaustive clinical corroboration," appointed a Commission to ascertain from its own readers and others all over the world facts, figures, and observations gathered clinically from the sources indicated. This clinical Commission flatly contradicts Dr. Lauder Brunton's discoveries by his experiments on animals. "In some instances," gently insinuates the editor of the *Lancet*, "deaths from direct cardiac failure, of which the pathology is again uncertain, are said to occur, and our Commissioner, whilst he maintains that very many of the cases assumed by the reporters to be purely syneopal are really respiratory, believes that a considerable number of them are to be found amongst those which we have collected and published." With such evidence before them one would have thought the conductors of the *Lancet* would have had the honesty to declare that the slaughter of the 490 dogs, cats, monkeys, horses, goats, and rabbits had been, from a pharmacological point of view, a mistake and a failure, to put it mildly. Nothing of the kind. "Surgeon-Lieutenant-Colonel Lawrie's work, taken together with the incisive criticism of Dr. Lauder Brunton, who represented the *Lancet* on the occasion of the Second Hyderabad Chloroform Commission, must always remain monumental." It must, indeed; but not in the sense intended by the *Lancet*. A great many critical observers have lost their faith in modern methods of physiological research by such glaring failures as the one under review, and the sophisms of the *Lancet* will not tend to revive it.

THE "VETERINARY-CHEMIST" FUND.

The following were the gentlemen who guaranteed contributions to the fund we raised for defending the right of chemists to the use of the description "veterinary chemist," and who, on application, have promptly paid their proportions of the balance of the costs after the solicitors for the College had paid the costs ordered by the Court and recoverable from them:—

		£ s. d.		
The Proprietors of THE CHEMIST AND DRUGGIST				
guaranteed	guaranteed..	10	10	0
H. Cuff, New Southgate,		10	10	0
R. Groves, Blandford,	"	5	5	0
Fox & Sons, Bethnal Green Road, N.E.,	"	3	3	0
Baker & Son, Chichester,	"	2	2	0
Bird & Storey, Castle Street East, W.,	"	2	2	0
E. Matthews, Royston, Herts,	"	2	2	0
J. Wood, Aylesbury,	"	2	2	0
L. J. Healey, Drogheda,	"	2	0	0
C. Bayley, Park Street, Walsall,	"	1	1	0
C. Clayton, Cowley Road, Oxford,	"	1	1	0
J. T. Coats, Leith,	"	1	1	0
W. Field, Rotherfield,	"	1	1	0
Hinkley & Co., Ray Street, E.C.,	"	1	1	0
W. E. Milton, Chew Magna,	"	1	1	0
A. Oglesby, Barnsley,	"	1	1	0
C. B. Shaker, Llankeston,	"	1	1	0
M. C. Summers, Heckington S.O.,	"	1	1	0
J. Wise, St. Neots,	"	1	1	0
H. Barlow, West Street, Congleton	"	0	10	6
J. Burgess, Ferndale, South Wales,	"	0	10	6
F. R. Cowley, Ross-on-Wye,	"	0	10	6
W. Mangnall, Carlisle Street, Bradford,	"	0	10	6
H. W. G. Morris, High Street, Thame,	"	0	10	6
W. Wyatts, Stonewell, Lancaster,	"	0	10	6
C. S. Reid, Medical Hall, Swanseacombe,	"	0	10	0

Two of the guarantors only have failed to send a remittance.

Legal Reports.

DART v. THE ELECTRICITY SUPPLY CORPORATION.

IN this action, heard on June 26 and 27, before Mr. Justice Cave and a special jury, the plaintiff, a chemist and druggist, residing in Southampton Street, Strand, London, claimed damages for injury to his premises and to his health by the vibration caused by the working of the defendants' electrical machinery in Maiden Lane. The defence was a total denial of any damage. Mr. Willis, Q.C., and Mr. Ellis represented the plaintiff, and Mr. Fletcher Moulton, Q.C., and Mr. Turrell for the defendants.

Mr. Willis said that the plaintiff had carried on his business in Southampton Street, Strand, for over thirty years, renting the premises from the Duke of Bedford at 90% per annum. The electrical-works complained of were first started by Messrs. Gatti, refreshment-contractors, in 1888, but they had a small plant only. A company was formed called the Charing Cross and Strand Electricity Supply Corporation. The plant of the station was considerably increased, and the vibration was such as to seriously inconvenience the plaintiff, his assistants, and his tenants. The plaintiff's health suffered considerably, and he was obliged to frequently leave his business and go out of town. He had lost some of his tenants, and had been unable to let his rooms in consequence of the vibrations.

Mr. William Dart, the plaintiff, bore out his counsel's statement. He first noticed the disturbance in the autumn of 1891, and he complained to Messrs. Gatti, and one them, upon one occasion, went over the house with him, but professed not to detect any considerable vibration.

Dr. G. J. Vine, medical officer to the Inland Revenue Office, said he had attended Mr. Dart for nervous prostration and consequent indigestion. This was undoubtedly due to the vibration caused by the defendants' machinery, and if that cause were not soon removed he should be sorry to say what might be the consequences. He himself had frequently felt the vibration, both at plaintiff's premises and at his own house in Henrietta Street, Covent Garden.

Mr. Edward C. de Segundo, an electrical-engineer, gave the results of observations and experiments he had made at the plaintiff's premises. The vibrations were certainly due to the electrical machinery, and were of a disagreeable character. Corroborative evidence was also given by Mr. Frederick William Davis, a tenant of adjoining premises; Mr. A. J. Thorne, assistant to the plaintiff; Mr. Francis Dalton, who acted as plaintiff's *locum-tenens*; Mr. Jaggs, a tenant of the plaintiff's; and Misses Braham and Green, in Mr. Jaggs's employ; and the Rev. A. Loumdes.

Mr. Turrell, for the defence, contended that the vibration to be detected at plaintiff's house was due to the traffic in the streets, the working of the printing machinery in the neighbourhood, and to the general shaky condition of the house itself.

Dr. John Hopkinson, F.R.S., gave evidence as to several visits to plaintiff's premises and making experiments with mercury with a view of ascertaining what amount of vibration there was. He generally supported Mr. Turrell's view.

Mr. Spencer Chadwick, an architect and surveyor, and chairman of the defendant company, gave similar evidence to that of Dr. Hopkinson, and added that the house itself was a most imperfect structure; it was, in his opinion, in a dangerous condition, and ought to be condemned. When anyone walked across the floor of the shop the bottles on the shelves were shaken and their contents were set in motion.

Mr. W. P. Patchell, the electrical-engineer to the defendant company, also stated that he discovered no vibration at the plaintiff's house which could be attributed to the electrical machinery.

The case at this point was adjourned, and the hearing was resumed on June 29, when Mr. Edward de Segundo was recalled with reference to a visit to the defendant company's works on the preceding evening in company with the members of the jury. He stated that several machines which at the time of his previous visit were on oak bed-plates were now placed on a stone foundation, and this would necessarily

greatly decrease the vibration. Mr. Patchell corroborated this statement.

His Lordship, in summing up, commented upon the divergence of the expert testimony, and advised the jury to depend upon their observations at the time of their own visit to the premises. The jury retired for about an hour, and upon their return into court announced that their verdict was for the defendants.

PRESS NOTICES AND TESTIMONIALS.

IN the Chancery Division of the High Court, on Saturday, Mr. Justice Wright delivered judgment in the case of *Alabone v. Morton*. This was the case in which the plaintiff, having been struck off the register of medical practitioners, yet prepared and sold drugs, and had thereby subjected himself, it was said, to penalties under the Apothecaries Act.

The plaintiff, "Dr." Alabone, of Lynton House, Highbury, sought to prevent the defendant pirating a book which was first published in 1877 under the title "Cure of Consumption," and which has since run through several editions. The plaintiff asserted that after the defendant had left his service he also published a book, under the name of "Prevention and Cure of Consumption," in which were inserted copies of testimonials which the plaintiff had received from his patients, as well as Press notices that had appeared regarding the treatment of patients adopted by the plaintiff, and extracts of the particulars of cases taken from the plaintiff's case-book; all of which, it was alleged, the defendant had improperly obtained.

After hearing the case, Mr. Justice Wright thought that the business might be a cruel and nefarious system of obtaining money by false pretences from persons who were induced to believe themselves consumptive. He said if that were so the law would not lend its aid to protect a book published as part of such a scheme. The Court ought not to act blindfold. He therefore postponed judgment, to enable the Official Solicitor and Public Prosecutor to inquire of the newspapers whether the notices were paid for or in any way arranged. He directed that either party might, if so advised, put the case in the paper for final judgment on July 3 or thereabouts, the books and papers in the meantime remaining in the custody of the Court.

On Saturday his Lordship delivered his final judgment as follows:—Assuming that the plaintiff is not debarred by his conduct or the character of his business from asking the aid of the Court, I must hold that he is entitled to an injunction. I find that the defendant has pirated some of the plaintiff's cases, and has made improper and business use of information confidentially obtained by him while in the plaintiff's service. It was objected at the bar that the plaintiff illegally practises as an apothecary, and I have no doubt he does so, and that no contract in furtherance of that illegal practice could be enforced. But this is not a question of enforcing such a contract. A wrong has been done to the plaintiff which, on the assumption I have for the moment made, does him prejudice in respect of matters not shown to be tainted with invalidity, and I think he ought not to be refused relief merely because to give him such relief may incidentally involve the consequence of benefit to his illegal practice as an apothecary. Then, is the plaintiff debarred by his conduct or by the character of his business from obtaining the aid of the Court? The inquiries which I have made have not thrown any further doubt on the authenticity or genuineness of the plaintiff's testimonials or patients; but they have much strengthened my suspicion that some, at least, of the so-called Press notices are not what they purport to be, and that whatever may be the value of the plaintiff's method of treatment, it does not depend on the use of the drug *lacnanthe*. But I cannot act on mere suspicion, and disbelieving, as I do, the defendant's evidence as a whole, I have not judicial knowledge of facts which could justify me in giving effect to those suspicions, nor any judicial means of obtaining such knowledge, and I have no right to deny relief or delay it indefinitely unless on the grounds of matters proved or appearing in the action. I must give judgment for the plaintiff for the injunction as prayed except as to the Press notices, which Mr. Cozens Hardy waived, and I see no ground on which I can judicially refuse costs. It is to be hoped that the proper authorities will take steps to enforce the Apothecaries Act against both

parties, and consider whether proceedings of another kind should not be taken against the defendant, whose fraud and false pretences are established by the evidence in this case, as far as that evidence can be relied upon.

Counsel appearing on behalf of the proprietor of the *Echo* asked permission to make a statement.

Mr. Justice Wright: I cannot enter upon the acts of particular newspapers; but I will say, if you like, I have reason to think what the *Echo* wrote was written independently. I must also add that there are other cases in which I can make no such statement.

Counsel said that as soon as the question with regard to the Press notices was raised the proprietors withdrew them.

Mr. Justice Wright: You had better say no more about it, or I may make some strong observations upon some of these notices.

WHAT IS MALT-VINEGAR?—UNSUCCESSFUL PROSECUTION AT GLASGOW.

On Wednesday last Sheriff Birnie, Glasgow, was engaged all day hearing a case against Kenneth Campbell, grocer, 425 Victoria Road, who was charged, at the instance of the city sanitary authorities, with having on May 26 last sold a bottle of what purported to be malt-vinegar, but which the public analyst certified was merely diluted acetic acid. Respondent, who pleaded not guilty, was defended by Mr. Salvesen, advocate, while the prosecution was conducted by Mr. J. M. Lees, advocate.

John Murray, sanitary officer, spoke to making the purchase along with Inspector Inglis.

In cross-examination witness stated that he asked for malt-vinegar pure and simple, and did not know the difference between brown vinegar and distilled malt-vinegar. The bottle was labelled "Distilled pure-malt-vinegar."

Dr. John Clark, public analyst for Glasgow, read the certificate of his analysis of the sample, which set forth that the sample was not genuine malt-vinegar, but simply diluted acetic acid. In genuine malt-vinegar they found phosphoric acid, and inorganic matters extracted from malt. He described how malt-vinegar is made, and how it has a peculiar flavour whether it is distilled or not, although in the former case there is nothing but the aroma to distinguish it from dilute acetic acid. The only benefit he could see in distillation was that it enabled makers to utilise sour beer and waste malt-liquors, and enabled them to mix wood acetic acid with distilled malt-vinegar. The vinegar in question was manufactured by Messrs. Crosse & Blackwell, London, and in a correspondence he had had with them upon this matter a considerable time ago he suggested that they should use a label with the words "Distilled malt-vinegar." The benefit yielded by distillation was that they could use up the refuse. In his opinion, malt-vinegar was the more wholesome kind because acetic acid derived from wood stopped fermentation, and might possibly interfere with the gastric juices.

In cross-examination witness said he thought it quite unnecessary to state in his report that the liquid which he analysed had an aroma obtained by distillation from malt-vinegar. Distilled malt-vinegar was not malt-vinegar. He did not know that Scotch people preferred the white or distilled vinegar to the brown. It was his view that white was more easily imitated than the brown. That was where the danger lay. He thought distilled malt-vinegar was just as wholesome as the other, but the danger was that people who made white vinegar might utilise bad material.

Mr. Tatlock, the other public analyst for the city, was also examined. He said most, if not all, analytical experts were agreed that in malt-vinegar there must be malt. If the vinegar was distilled, the name should also be changed.

Cross-examined: "Distilled pure malt-vinegar" was not a correct designation of distilled vinegar. The description he would suggest would be "Distilled from malt-vinegar." His objection to the description was that it led purchasers to believe that distilled vinegar was really as good as, or something better than, malt-vinegar.

Mr. Campbell Paterson, wholesale vinegar merchant, Glasgow, said there was a great gain in selling the acid made from wood. In Scotland the demand was principally for white or distilled vinegar, while in England and Ireland it was the other way about. English people would not buy

white vinegar. White vinegar was browned with caramel to make it brown vinegar. He might be able to tell distilled vinegar by the smell, but he did not think an ordinary purchaser could. He objected to the word "malt" being used in connection with vinegar after it had been distilled. Ever since he was convicted in 1881 for a similar offence to this, he had been labelling his distilled-vinegar bottles "Distilled vinegar" or "Crystal vinegar."

For the defence, Messrs. Crosse & Blackwell's factory manager and assistant-manager were examined. Their evidence was to the effect that in the manufacture of their vinegar they used nothing but malt and raw grain. White vinegar was made from brown vinegar, and was deater, as it had to go through an additional process. It was none the less pure because it was distilled.

David Muir, the grocer's assistant who sold the vinegar, said the inspectors did not say what colour of vinegar they wanted, but he understood it was ordinary white vinegar they wished. They got what he would have given to any person who might enter the shop and ask for a bottle of malt-vinegar.

Alfred James De Hales, analyst and consulting chemist, London, spoke to analysing samples of Messrs. Crosse & Blackwell's vinegar, and detailed the results. The quality of vinegar was not in the least changed in the process of distillation. Distillation removed the colouring entirely, and nearly the whole of the mucilage, and left the vinegar practically identical with what it was before. "Distilled malt-vinegar" was undoubtedly of the nature, substance, and quality of malt-vinegar—it was malt-vinegar. He had no doubt that the sample he had analysed had been prepared by the distillation of pure malt-vinegar. The idea put forth by the prosecution that "distilled malt-vinegar was as different from malt-vinegar as brandy was from wine" was absurd. A truer analogy was water and distilled water; notwithstanding distillation, it was still water.

Cross-examined: He should prefer distilled water to ordinary water for everything but drinking, because the air was out of it. It appeared to him that white vinegar was made to meet a big demand.

Dr. George Gerald Henderson, Professor of Chemistry in the Glasgow and West of Scotland Technical College, gave similar evidence for the defence.

Mr. Lees, in addressing the Court, said the question was not whether the distilled article was as good and dearer than the malt-vinegar, but whether it was of the nature, substance, and quality of the article which was asked for. He maintained that it had not been proved by the defence that what was supplied was malt-vinegar, and pressed for a conviction.

Mr. Salvesen, in his address, said that what his friend sought was really a judicial declaration that in future every grocer must understand that when malt-vinegar was wanted, although the purchaser did not say so, what he was to give him was brown vinegar. That was what the whole question came to. Unless he could show that the person who wanted it asked for malt-vinegar meaning brown vinegar and did not want white vinegar, he could not possibly succeed in this prosecution. This, he maintained, he had not done. It was for the manufacturers and not for his Lordship to consider whether a particular form of vinegar was more or less easily imitated or not. It was for the people of Scotland to decide which of these vinegars they preferred. If they preferred to have the ordinary white vinegar, which could only be produced by distillation, why should they be deprived of that? The question for his Lordship was whether or not this bottle contained malt-vinegar or simply diluted acetic acid.

The Sheriff asked Mr. Lees what benefit the prosecution would have supposing he found that this was not malt-vinegar. Was it not intended to put an end to distillation, or, at all events, to exclude the word "malt" from the label? "In other words," said his Lordship, "if I decide with you that this person must be convicted, would it be of any advantage?"

Mr. Lees: Of course; it would have this conclusive advantage—that no one in Glasgow or elsewhere would be in safety to sell distilled malt-vinegar as malt-vinegar.

The Sheriff: I have not been able to follow part of the proof at all. Why should the coloured liquid be malt-vinegar and the distilled not?

Mr. Lees: We saw on the evidence that with distilled

malt-vinegar you take out of it everything except acetic acid and water. Malt-vinegar is as old as the time of Moses, I believe. (Laughter.) The distilled article is only some two-and-twenty years old.

The Sheriff, in giving judgment, said the object of the Food and Drugs Act was twofold. It was, in the first place, for protecting the health of the community, and, in the second place, to protect honest traders and to protect the public against fraudulent sales. With the first of those objects this case had nothing to do, for it was not said that the white vinegar was less wholesome than the other. And with the second object of the Act it seemed to him that although Mr. Lees was successful in gaining a conviction on the ground on which he had placed it, it would not do anything to effect the object which he had in view. His Lordship thought the prosecution had been a most valuable one, as showing the public what probably they did not know before; but he did not think the question here was between selling vinegar made from malt under the name "malt-vinegar," or under the name "distilled malt-vinegar," but that the case went much deeper, and that the dangerous part was the distillation. However, he was bound to decide the case as it stood. He was asked here to say, first, that this messenger asked for malt-vinegar, and in the second place that he did not get malt-vinegar. He thought the messenger did ask for malt-vinegar. Therefore, he came boldly to the point—Did he get malt-vinegar? A good deal might be said for Mr. Lees' contention. There was no doubt that Messrs. Crosse & Blackwell and other large manufacturers had made a distinction between malt-vinegar and what they made by distillation. It had been called "distilled vinegar," "white vinegar," and probably other names that they did not know of. There was equally little doubt that there was a difference between the two, the malt-vinegar having subtracted from it certain solid ingredients and the colour after leaving it. What he had to ask himself was this—Had the word "malt-vinegar" come to have a special meaning, and whether he had any evidence entitling him to say that it had, or that vinegar distilled from malt was not malt-vinegar? His opinion was that he had not, and therefore he must dismiss the case.

An application for costs was made on behalf of the respondent, but the Sheriff said that the Act did not give him power to grant the request.

IPCACUANHA ROOT AND STEM.

IN our Trade Report of last week we mentioned that Professor Attfield's long-expected report on the two samples of ipecacuanha root and stem submitted to him by the President of the Drug Club had been received. We are indebted to the last-named gentleman for a copy of this report, which we print *in extenso* below. It may be useful to recapitulate the circumstances which led to Professor Attfield's investigation. For many months Brazilian ipecacuanha has been imported containing from 25 to 45 per cent. of woody stem. The wholesale druggists complained of this material being offered at the auctions described simply as "ipecacuanha," their objection being founded upon the circumstance that the root only was the official portion of the drug, and upon the belief entertained by most authorities that the woody stem was, if not altogether valueless, at any rate much less potent than the root. This phase of the question was dealt with in our issue of April 22. At the drug-auctions of May 25 Messrs. Lewis & Peat offered a parcel of ipecacuanha accompanied by an analytical certificate and a letter written by Mr. R. A. Cripps, stating that "as the result of numerous assays," he was of opinion that a good average sample of ipecacuanha should contain from 21 to 2.2 per cent. of emetine. The wiry sample adjoined contained, according to Mr. Cripps, 2.40 per cent. of emetine, and was therefore a "really good root, well over the average." Another sample was declared by Mr. Cripps to be scarcely up to the average. He had found it to contain 1.94 per cent. of emetine, and by carefully separating the residue of the specimen into root (1,420 grammes) and stem (1,020 grammes), he had ascertained the former to contain 2.10, and the latter 1.70 per cent.

of emetine. In other words, the woody stalks of ipecacuanha, according to Mr. Cripps, are worth 80 per cent. of the value of the true root.

Mr. Cripps's conclusions were strongly challenged at the auctions by Mr. Richard Barron, the President, and Mr. Charles Umney, the Secretary, of the Drug Club, and at their request Messrs. Lewis & Peat supplied two samples of the identical bales mentioned in Mr. Cripps's certificate. These samples were forwarded to Professor Attfield for examination, the result being embodied in the following

REPORT ON TWO SAMPLES OF "IPCACUANHA."

17 Bloomsbury Square, London, W.C.

June 28, 1893.

1. Each sample was duly sealed in red wax, impressed "London and India Docks Joint Committee."
2. One sample was labelled as follows:—"London and India Docks Joint Committee. Ex *Tamar* and Rail. 93/447. J.F.M. No. 2. 1 Bale. 2 lbs. sample ipecacuanha. Crutched Friars Warehouse. 29.5/93."
3. The other sample was thus labelled:—"London and India Docks Joint Committee. Ex *Tagus* and Rail. 93/333. DV L. No. 59. 1 Bale. 2 lbs. sample ipecacuanha. Crutched Friars Warehouse. 29.5/93."

THE "NO. 2" SAMPLE.

4. I find this to consist of 65.7 per cent. of official ipecacuanha, and 34.3 per cent. of ipecacuanha-stems.
5. The 65.7 parts of official ipecacuanha contain 1.327 parts of the alkaloidal substance known as emetine.
6. The 34.3 parts of ipecacuanha-stems contain 0.648 part of similar emetine.
7. Therefore, 100 parts of this No. 2. sample of so-called ipecacuanha yield 1.975 part of emetine; for 1.327 plus 0.648 equal 1.975.
8. Further, a direct determination of the alkaloid in this No. 2 sample gave me 1.950 per cent. of emetine.
9. The figures in paragraph 5 show that the official ipecacuanha in this No. 2 sample contains 2.020 per cent. of emetine.
10. The figures in paragraph 6 show that the ipecacuanha-stems in this No. 2 sample contain 1.890 per cent. of emetine.
11. The moisture in the official ipecacuanha of the sample amounts to 9.9 per cent.; the moisture in the stems to 8.1 per cent.; in the whole sample 9.3 per cent.

THE "NO. 59" SAMPLE.

13. I find this to consist of 62.6 per cent. of official ipecacuanha and 37.4 per cent. of ipecacuanha-stems.
14. The 62.6 parts of official ipecacuanha contain 1.252 parts of the alkaloidal substance known as emetine.
15. The 37.4 parts of ipecacuanha-stems contain 0.546 parts of similar emetine.
16. Therefore, 100 parts of this No. 59 sample of so-called ipecacuanha yield 1.798 parts of emetine; for 1.252 plus 0.546 equal 1.798.
17. Further, a direct determination of the alkaloid in this No. 59 sample gave me 1.820 per cent. of emetine.
18. The figures in paragraph 14 show that the official ipecacuanha in this No. 59 sample contains 2.000 per cent. of emetine.
19. The figures in paragraph 15 show that the ipecacuanha-stems in this No. 59 sample contain 1.46 per cent. of emetine.
20. The moisture in the official ipecacuanha of the sample is practically 10 per cent.; in the stems 8 per cent.; in the whole sample 9.3 per cent.

REMARKS.

21. These two samples of so-called ipecacuanha contain, in round figures, two-thirds only of official ipecacuanha and one-third of ipecacuanha-stems.

22. By official ipecacuanha I mean that which alone is recognised by the compilers of the British Pharmacopœia, and, therefore, that which can alone be used legally, under the Medical Acts, in the official "preparations" of ipecacuanha—namely, true roots.

23. Ipecacuanha-stems have no official value; indeed, they have no official position.

24. The 2 per cent. of emetine I find present in the official ipecacuanha of these two samples of so-called ipecacuanha is somewhat above the average proportion of emetine present in official ipecacuanha; for though still higher proportions have been recorded, a larger number of lower proportions have been published; my own analyses of other samples also point to at most $1\frac{1}{3}$ rather than 2 per cent.

25. But, in truth, nature knows no "average" proportion of alkaloid in drugs; differences in soil and climate in different places, or in the same place in different years, causing great variations. Secondly, while such an alkaloid as, say, quinine or morphine has at least fixed and definite properties, the so-called "emetine" has not yet been obtained in a sufficiently fixed and definite condition to enable us to say that it is one single substance, emetine, and nothing else; hence, analysts at present have to rely on the general alkaloidal characters of the article termed "emetine" which they extract from ipecacuanha. Thirdly, the acids and alkalies that are used by analysts attack "emetine," therefore the yield of "emetine" will only be constant when the conditions of manipulation are constant.

26. A conventional process for the assay of ipecacuanha, described with great detail and under well-recognised authority, will doubtless be forthcoming in due time if no more scientific process should be discovered. Meanwhile, if analysts were to extract with cold ammoniacal chloroform first, and hot afterwards, and conduct any evaporations at as low a temperature as possible, maximum and fairly concordant results as regards any one sample analysed by different analysts might be expected.

27. It is to be hoped that any future authoritatively enjoined "standardisation" of ipecacuanha founded on proportion of emetine will be therapeutically satisfactory, but such a position is not yet attained. Indeed, it would seem that ipecacuanha-root from which all "emetine" is removed still has pharmacological value. The latter may or may not run parallel with percentage of "emetine." Meanwhile, our only guide is "emetine" estimated with all attainable accuracy.

28. We may be said to know nothing, and to be able to infer but little, pharmacologically respecting ipecacuanha-stems. Even the estimations of "emetine" in ipecacuanha-stems are too few at present to warrant generalisation as to the relative proportion of "emetine" in stem as against "emetine" in root.

29. I regret that the present state of knowledge regarding the pharmacology of ipecacuanha and its alkaloid or alkaloids, or other active principles, either on the chemical or medical side of pharmacology, prevents me writing any more definite report than the foregoing. And I fear that little more can be said on the subject until the drug and its contents have been submitted to thorough original research by some agency commanding commensurate knowledge, funds, and general resources.

JOHN ATTFIELD.

REVIEWS

The Traders' Manual of the Weights and Measures Acts. By G. PHILLIPS, certificated inspector for the County of Rutland (Oakham). 6d.

AN official does a real service to persons affected when he gives in handy form such technical information as he cannot help possessing. Mr. Phillips has given this to traders, to a certain extent, and all that he gives is useful. He might have told in more detail the practice in regard to the examination of weights and measures, and his little manual would have been much more useful if he had collected into it references to the principal legal decisions, interpreting the statute. Perhaps he will enlarge its scope in a future edition.

Fever Nursing. By MARY HARRIS. London: "The Record Press," 376 Strand, W.C. 1s.

IN the general hospitals, nowadays, fevers are seldom seen. This, of course, is as it should be; but it has disadvantages, and one of these is that the probationers have no oppor-

tunity of learning about fever nursing. Consequently, when they take up private work, they generally do so with very hazy notions of the special duties required from them in fever cases. Many are the mistakes into which they are liable to fall, and most of these might easily be avoided by reading such a book as the one before us.

The writer is a hospital sister, who has had exceptional opportunities of gaining experience of her subject. She describes the various common fevers shortly, but sufficiently, and after each gives a simple and practical account of the nurse's duties. She carefully distinguishes between what the nurse may and may not do on her own responsibility, between the duties of the nurse and those of the physician—a point that the private nurse is, perhaps, a little too apt to forget.

Prescribing and Treatment for Infants and Children. By PHILIP E. MUSKETT. Edinburgh and London: Young & Pentland.

THIS excellent little work has now reached its second edition. The success it has had is well deserved, for it fills a "felt want," and fills it worthily. The treatment of children, is one of the most difficult departments of medicine certainly and especially is it so to the junior practitioner. His hospital training is almost entirely amongst adult patients, and when he gets into practice, and is called upon to treat the children and the babies, he is apt to find himself somewhat at sea. Then it is that such a work as Dr. Musket's, with its concise and reliable information, is of the greatest value.

The work is divided into three parts. Part I. deals with dosage and therapeutics. In it the action and uses of the various drugs are shortly described, and then follow the doses appropriate to children of different ages. Part II. is devoted to treatment. The diseases are alphabetically arranged, and the medicinal and other treatment of each is briefly but clearly set forth. Part III. consists of recipes for various articles of sick-room cookery. Like the other parts this is excellently done, and the only objection to it is that it is far too short.

Handwörterbuch der Pharmacie. Edited by A. BRESTOWSKI. Vienna and Leipzig: W. Braumüller. Parts 5-8. 2in. 40pf. per part.

LAST year we noticed the publication of four parts of this dictionary. Since then other four have been received, thus bringing the work up to Fäulniss. As has previously been explained, the dictionary professes to do for pharmacy what "Watts" has done for chemistry. The editor is responsible for the bulk of the work, but the chief subjects are handed over to special contributors. Thus Professor Hartwich, of Zürich, is responsible for such articles as castor, catechu, cloves, and most important members of the vegetable materia medica; O. Schmidt, a pharmacist of Troppau, writes on cassia, cannabis, &c.; the metals and some parts of physical chemistry are treated by Dr. Ad. Kwisda, of Vienna; G. Kottmayer, of Komorau, deals with digitalin, quinine salts, and active principles generally. These are but a few of the names which are to be found throughout the dictionary. The work, as far as quality is concerned, progresses satisfactorily, and there is much in it which will interest the English pharmacist. In regard to accuracy there is little to find fault with. Perhaps Professor Hartwich was thinking of gambier when he wrote that catechu is eaten with the betel-leaf, for that is a very unusual purpose to put the extract of *Acacia Catechu* to. We notice under "Chininsulfat" the interesting statement (which is not generally known) that in 1826—i.e., six years after Pelletier and Caventou discovered quinine—Apotheker J. D. Riedel, of Berlin, started a quinine-factory in which the sulphate was produced, this being the first German quinine made. The price of it per pound (470 grammes) was 90 thalers—that is, at the rate of 576m. per kilo., or, say, 16s. 6d. per oz.—not an extravagant price for those far-off days, one would think.

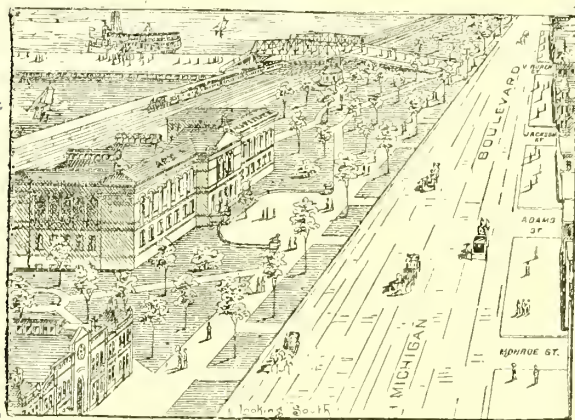
"PLEASE, teacher," said the small boy inquisitor, "if I was to go and swallow a thumometer, should I die by degrees?"

The WORLD'S COLUMBIAN EXPOSITION CHICAGO.

1892 1893

THE WORLD'S CONGRESS AUXILIARY.

ALTHOUGH nothing has, so far, been said in these notes regarding the branch of the Exposition work incorporated by the Congress Auxiliary, it is not because that work is not in evidence but rather that the time was not ripe for comment. There has been a steady flow of congresses since the first week of May, and the system dominating them is such that our representative in Chicago happened to strike the month devoted to temperance, social and moral reform, and finance. These subjects have brought many earnest men and



ART INSTITUTE, MICHIGAN BOULEVARD, BETWEEN MONROE AND ADAMS STREETS.

women as well as "cranks" to the Fair. Our representative was present at a meeting one day when a gifted lady was enthralling an assembly with her views upon drink as it affects woman's welfare, and she spoke with so little effort, and was so well heard at the back of the gallery in the Hall of Columbus, that it can fairly be said that this is a suitable assembly hall for the International Pharmaceutical Congress which is to meet on Monday, August 21.

The building in which congresses are held is not in the World's Fair grounds, but in the very centre of the city, on the Lake Front, at the foot of Adams and Monroe Streets. There stood upon this spot until last year the Inter-State Exposition building which for nine years was a popular place for political meetings, balls, summer concerts, conventions, cattle

and other shows. When the Congress Auxiliary was decided upon the "lot" was granted for a permanent art institute, the Exposition authorities contributing \$200,000 to aid in building what will at some time be one of the most classic structures in the Windy City. A sum of \$600,000 has already been expended on it. At present only the front of the institute has been erected, and internally it is in a highly unfinished state. It contains two large halls, the Hall of Washington and the Hall of Columbus, each capable of seating from 2,000 to 3,000 people, and about a dozen smaller halls each capable of accommodating as many hundreds. The acoustic properties of the large halls are fairly good, but it is not expected that the pharmaceutical meetings will necessitate the use of these halls, except at the opening meeting.

It is well that visitors to the Congress should note that on August 14 the forty-first meeting of the American Pharmaceutical Association will be held in the same place, and the local committee who have the arrangements for that in hand have so distributed the entertainments, &c., that most of those who attend the Association meeting will stay over the Sunday and take part in the Congress. The Illinois Pharmaceutical Association will also meet on August 16 and 18, but in the Illinois Building at the Exhibition grounds, so that the opportunity will be afforded to all of visiting the Exposition. The local committee have put that down on the programme, at any rate. Our representative had the good fortune to meet this committee in Mr. Biroth's offices in the Schiller Building, Randolph Street. Those associated with Mr. Biroth are Messrs. D. R. Dyche, C. S. N. Hallberg, H. W. C. Martin, and T. H. Patterson, and a heartier set of men one could not expect to meet. They are devising many good things for the visitors, who, under their guidance, will have excellent facilities for doing the City and the Fair thoroughly. The residential headquarters will be the Hotel Gordon, 5208-5212 Lake Avenue, where rooms can be secured at the rate of \$2 per day (without meals) on application to Mr. Biroth.

The scientific arrangements of the Congress are in the hands of Professor Oscar Oldberg, Dean of the young but vigorous Illinois College of Pharmacy. Dr. Oldberg is very hopeful that the Congress will be a success. Up to the present he has secured a sufficient number of papers to justify this prediction, but it ought to be mentioned that it has become characteristic of these auxiliary congresses (one of which the International Pharmaceutical may be considered to be) for the best communications to be made extemporaneously. There will be a reception of foreign guests on the evening of August 21, and two days later a banquet. The sessions of the Congress will close on August 24.

The Women's Pharmaceutical Association of Illinois, which is the only organised body of American pharmacists represented in the Fair, have resolved upon a congress, to be held on August 23. It is to be conducted solely by women, and will be devoted to their influence on and interests

in pharmacy. The Association is working hand-in-hand with the Women's Committee of the Fair, and they have a portion of the women's hospital in the grounds fitted up as a model pharmacy, of which Miss Jean Gordon, Ph.G., is the manager. Mrs. Roby, whose portrait was given in THE CHEMIST AND DRUGGIST recently, is the President of the Association, and Mrs. Adeline E. P. Cummings, pharmacist, Highland Park, Ill., is acting as Secretary of the Congress. The committee are very anxious that women pharmacists in England should contribute to the proceedings of their Congress. Letters have been sent to some of the women pharmacists in England whose addresses were available, but it is the desire of the committee that all women connected with British pharmacy should co-operate with them. It is hoped that they will take the following letter as being addressed to them personally, and respond to Mrs. Cummings's invitation:—

Highland Park, Illinois, U.S.A.,
June 23, 1893.

MADAM,—When it became apparent that there would be a World's Fair this year there was called a meeting of the women pharmacists of the State of Illinois to discuss the project of trying to establish a model pharmacy on the World's Fair grounds, which should be conducted by women. To secure recognition and concessions from the Illinois Woman's Exposition Board, we found it necessary to become an incorporated association. Some thing over a year ago we applied for, and were granted, a charter by the State of Illinois. The pharmacy which we sought to establish will before you receive this letter be in working order.

To promote greater helpfulness among members of the profession, and to inform the public of what we were doing, we applied for and secured the privilege of holding a Congress on the 23rd of next August. We respectfully invite and urge you to attend this Congress, and take part in its deliberations.

If you think it impossible for you to be present, will you kindly write a letter to the Congress concerning the work of women pharmacists, or dispensers, in England?

Hoping to hear from you,

I am, yours sincerely,

ADELINE E. P. CUMMINGS.

By order of the Woman's Committee of the World's Congress Auxiliary on Pharmacy.

The week beginning August 21 is one of scientific congresses solely, and those who attend the Pharmaceutical will also have the opportunity of taking part in a congress of chemists for which an attractive programme is provided. There is no fee for joining these congresses. Persons simply fill up a blank form, when they are provided with a ticket of membership. The proceedings in all cases are to be published in book form, each congress by itself. The price of the volumes has not yet been fixed, and it is not expected that any of them will be published before October.

BRITISH EXHIBITS.

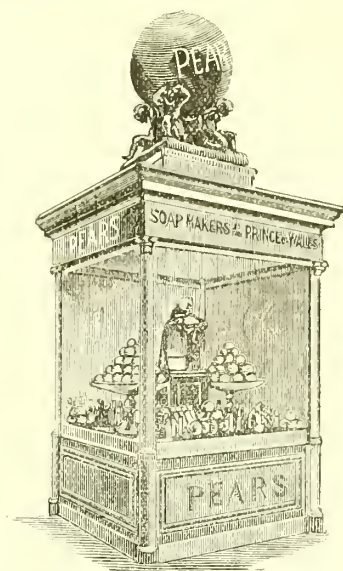
Returning to the ground floor of the Manufactures Building and the space occupied by Great Britain, we resume our report with one of the principal exhibits in the section—viz., that of

STEVENSON & HOWELL,

who, undeterred by the high American tariff, present to American pharmacists a tolerably complete selection of their soluble simple and compound essences for preparing aerated beverages. To a great extent the preparation of such essences is a sealed art in the United States, the universal use of extemporaneously-prepared aerated drinks from the soda-fountain militating against such refinement as the English trade demands. But these essences are a mere background to Stevenson & Howell's exhibit, which may be regarded as one of English distilled essential oils, and of such oils as eucalyptus, for which they have secured a reputation. The selection which they show includes all the better-known medicinal oils, and some rare ones used in compounding curious perfumes and in flavouring liqueurs. They are displayed in a handsome mahogany case, and amongst those to which prominence is given are lemon and bergamot essences, cinnamon and cloves, sandal and cubeb, and practically all other medicinal essential oils. The exhibit also includes natural fruit-essences and vegetable colouring-matters.

A. & F. PEARS (LIMITED).

The handsome white-and-gold case stands prominently in the section close to the Columbian Avenue, and is much admired. The various kinds of soap, including several trays



of the balls, are shown, and an attendant hands copies of Millais's "Bubbles" and the "Dirty Boy" to the passers-by, who seem to be not much less familiar than English people with the soap and its most striking advertisements. Close by

NEWBALL & MASON, OF NOTTINGHAM,

give Americans an opportunity of trying British products for some of the home-made ales which are popular here. Their case is smaller than the space allotted to them, but the outside part is occupied by a selection of culinary herbs, and



some of the lithographic advertising matter for which they are noted. The case contains ordinary retail packets of extract of herbs, and ginger, sarsaparilla, dandelion, and hop essences for making ales. These are arranged in a half-cone form.

NESS & CO., OF DARLINGTON,

have an open exhibit of thymol-cresol disinfectants and soaps placed immediately to the rear of Calvert's case, so that the two together look almost like one exhibit, and the condition in which the Darlington one is kept does not flatter the other exhibitor thus associated. This combination exemplifies the weakness of the British controlling influence. There appears to have been no scheme laid down to guide exhibitors, and in consequence everyone has done as he liked. This is highly advantageous to the most enterprising,

but we compare badly with other nations who secured the association of specific industries for combined exhibits to be displayed in a uniform style.

A JEALOUS GERMAN.

Opinions differ as to the value of the latter method of exhibiting. For instance, one German exhibitor was found to be exceedingly wroth with the way in which German manufacturers had been treated by associations and government officials. "Oh, yes, it is all very fine to be artistic and grand," said he to our representative, "but for a good business show give me the Great Britain section. What do we want with sculpture and canopies and pictures? It is customers we want, not millions of people to admire the nice way that we have displayed our goods."

"Then you are not proud of the progress of your fatherland, and this show as a monument of it?" (referring to the Chemical and Pharmaceutical Court).

"As a patriot, yes; as an exhibitor, no. I don't like to be taken care of in that way, for I can take care of myself, and that is where the English manufacturer has the advantage over me."

Coming from a German who knows American and English business well this is an opinion that is worth recording, but has it been such considerations that have influenced the British Commissioners to act as they have done?

Perhaps it is not generally known that

OUR "DIARY" IS AT THE FAIR.

It is one of those books which are of universal application, and this truism appears to have come home forcibly to Messrs. DUCKETT & Co., ink-makers, of Sheffield, who have a good exhibit of their ink-powders in the British Manufacturers section. There Mr. Duckett demonstrates to interested visitors how easy it is to make half-a-gallon of ink by shaking up 25-cents worth of nigerine or blue-black with so much water; and to further popularise the use of the powders he called in the aid of his well-thumbed copy of the DIARY one day, having taken it with him to while away the tedium of the voyage across the Atlantic—very good reading, too, for such circumstances. The blank pages of the DIARY came in handy for names and addresses of visitors, and this is how Mr. Duckett invited customers, in bold writing with blue pencil, on the blotting-sheet:—

Ladies and Gentlemen officially connected with Schools
Can have samples of these Ink-powders mailed to them
By writing their addresses in this book.

—
Please write plain.

—
Also the trade.

A day's space on the page served for each person, and by the end of the first week of June the December pages were being filled up as fast as the ink—for it is fast. Of that Mr. Duckett gave our representative a demonstration, by taking some writing which had been done the day before and pouring a few drops of water upon it. Letting that sink in the paper, and rubbing it with the finger, the ink did not run in the least.

The exigencies of classification take us now to the Agricultural Building, where food preparations, tea and coffee, aerated waters, and other beverages are displayed. It would puzzle the ingenious to tell how the authorities managed to include

AERATED WATERS

under agriculture. The fact is, of course, that food and its accessories are ranked with agriculture, and Group 10 of the department includes "pure and mineral waters, natural and artificial." It also happens that we find mineral waters in the Mines Building; but what is life without variety, and how pleasant a thing it is to feast our souls upon, say, a quartz-crushing machine or a turnip-chopper, and then revel in a draught from some cold spring which gurgles far West or trickles in the darkness of some Bavarian forest!

One of the anomalous things about the United States is that while soda-water is the most popular of drinks, there is scarcely such a thing to be found in homes as a bottle of an aerated beverage, except Belfast ginger-ale. The ale is exceedingly popular, and is to be found everywhere. Irish

firms export it in enormous quantities to New York—indeed, it is in such demand that the silver stand for the ginger-ale bottle is a regular article of trade with hardware people. It is noteworthy that Americans do not use wines at all freely, nor, for that matter, any other alcoholic drinks. Temperance—a true, natural temperance—is general, and there is an immense field open for beverages of a more palatable and less injurious character than iced water. So far, ginger-ale is the artificial aerated beverage which has met the popular taste, and the kinds which are sought for are imported and pay a heavy duty, so that by the time it reaches the consumer a bottle of the ale costs from 20 to 25 cents.

It is this circumstance which accounts for the comparatively large number of English and Irish exhibitors of aerated waters in the Agricultural Building. In all of these exhibits ginger-ale is given the place of honour, and several of the exhibitors have bestowed much pains in displaying the bottles attractively. The following are the firms represented in the section up to the time of writing:—

CANTRELL & COCHRANE, OF BELFAST,

to whom in a large measure the popularity of ginger-ale in America is due, make the shamrock the central feature of their exhibit, and upon this design they display bottles of ginger-ale and soda and other aerated waters. The case is elegantly draped in maroon and green velvet.

BRADFORD COFFEE-CAVERN COMPANY (LIMITED)

exhibit ginger-ale, lemonade, and other beverages, with the essences used in their manufacture.

WM. CORRY & Co., OF BELFAST,

have a handsome square case, in the centre of which, upon a blue-plush pyramid, stands a giant bottle of their ginger-ale, and as a setting to that the usual-size bottles of aerated beverages are placed round the margin of the case. This case, we may add, is a revolving one, clockwork bringing all parts into the spectator's view. This arrangement works nicely, and is effective.

SMITH DENTON, OF BRADFORD,

makes a small but rather elegant exhibit of waters in bottles and syphons, the latter having gilt tops.

IDRIS & Co. (LIMITED)

are the only London manufacturers of aerated waters who are represented in the Exhibition. They make a fairly good show, and it comprises bottles and syphons of beverages, a particularly strong exhibit being made of the syphons which, as the English trade know, the firm manufacture. But apart from these, the Idris case contains specimens of syrups, cordials, concentrated essences, and lime-juice preparations.

W. A. ROSS & SONS (LIMITED), OF BELFAST,

make a somewhat small display of their manufactures, but their intention appears simply to have been to show a limited number of specimens, and to make up for quantity by effectiveness and beauty of display. In this they succeed; a Royal-blue plush base being an admirable setting for a graceful wire spray, the arms of which make nice holders for bottles of ginger-ale, lemonade, soda-water, &c.

T. & H. SMITH & Co., OF EDINBURGH,

exhibit in this department as well as in the Manufacturers Building. The latter exhibit we shall refer to in a subsequent report. In the Agricultural section their case is a small one, but it shows off to advantage samples of kola champagne, ginger-ale, and soda-water. In the same case the firm's coffee-extract is displayed, the American label being, if anything, prettier than the one used in England, and the name is different—viz., "highly concentrated coffee."

SELF-RECORDING THERMOMETERS.

In our report of Messrs. Darton & Co.'s exhibit last week we referred to the registering-lever of self-recording aneroids jumping off the drum. It was self-recording thermometers that were referred to.

Foreign and Colonial News.

THE EFFECT OF DIMINISHED ADVERTISING.—The decline in the H. H. Warner medicine-business in Rochester, U.S.A., has caused a decrease of \$19,000 in the post-office business in that city the past year, and as a consequence the salary of the postmaster has been cut down from \$4,000 to \$3,700.

TWO PINTS OF CHLOROFORM.—Mr. Frederick G. Van Pelt, son of G. S. Van Pelt, a jurist of New York, died in San Francisco, on June 27, from having taken thirty-eight ounces of chloroform. It is said that he had been addicted to the use of chloroform as an intoxicant, but this is denied by his friends.

PHARMACY IN BRAZIL.—The pharmacists of the city of Rio Janeiro have presented a petition to the Brazilian Congress, through the medium of Dr. Raymundo Bandeira, asking for the right of freely exercising their profession without the formality of an official diploma. Their request is not likely to be granted.

FIRE AT A RUSSIAN CHEMICAL-WORKS.—A disastrous and fatal fire occurred in Odessa recently at the extensive chemical-works of Messrs. Brodsky and Trabotti, in the Bugewaia Street. The conflagration originated with some accidental explosion in a department filled with benzine. Two workmen were burnt to cinders, and three others have since succumbed to their terrible injuries at the Jewish Hospital.

STRYCHNINE AS AN ANIMAL-PEST DESTROYER.—Thousands of ounces of strychnine are annually used on the Pacific coast and in the far western States by agriculturists for killing squirrels, &c. There are indications that this promiscuous use of such enormous quantities of poison will soon begin to affect the vegetation, and bring about the extinction of animals not intended to be exterminated.

SATURATING DRUGS WITH PARIS GREEN.—The building Nos. 4 & 6 Gold Street, New York, was burned down the other day, and the stock of crude drugs of Messrs. C. H. Dietz & Co., drug-importers, as well as that of Mr. James A. Blanchard, a dealer in Paris green, tars, and oils, was destroyed. Among the articles stored on the second floor by Mr. Blanchard was a lot of three or four tons of Paris green, a considerable part of which was washed down upon the goods of Dietz & Co., saturating a number of packages of dandelion-root, aconite-root, elecampane-root, chamomile-flowers, senna-leaves, lupulin and hellebore-root. Among the trade some fear is expressed that portions of these goods may by some means find their way into the market again, as they have been surrendered to the underwriters, and the sanitary authorities are called upon to condemn and destroy the goods, if necessary.

A PATENT MEDICINE IN THE DECLINE.—An order has been filed in the County Clerk's Office at Rochester, U.S.A., dissolving the Hop-bitters Manufacturing Company. Asa T. Soule made his fortune out of the medicine, and the dissolution of the company leaves the heirs of the progenitors wealthy. Last March the members of the corporation, Wilson Soule, J. M. Seeley, Morrill Soule, and H. C. Soule, applied to the Attorney-General for a voluntary dissolution of the corporation. John Desmond was appointed referee. He reports that the receipts of the company have not for the last five years been more than from \$5,000 to \$7,000, and that they were not enough to pay the salaries of its officers. In the palmy days of the company Asa T. Soule, as its president, drew a salary of \$15,000 a year, and Wilson Soule, as its secretary, a salary of \$5,000. Mr. Desmond reported that the assets were not more than \$2,000, and that the liabilities were about \$40,000. The sales of hop bitters had fallen off so that it did not pay to run the concern.

CRISIS IN THE SULPHUR INDUSTRY.—Some mine-owners at Caltanissetta, in Sicily, are endeavouring to form a syndicate to regulate the excess in the sulphur output at the mines to prevent over-production and consequent fall in prices. As a rule, when prices are high, mine-owners resume operations and depress their own trade by glutting the markets; hence the necessity of organising a syndicate to

regulate the supply. But the difficulty apprehended is the inherent distrust Sicilians have of each other, and on this account it is feared that the combination will be of short duration. When it is remembered that the number of sulphur-mines worked in Sicily is about 400, producing an average annual yield of 328,000 tons, valued at 2,000,000*l.*, and giving employment to nearly 30,000 workmen, the anxiety caused by the present depression can be easily understood. A deputation of Sicilian mine-owners waited not long ago upon the Minister of Public Works to obtain a reduction in railway charges on the conveyance of materials essential for the working of the mines.

THE TUSCAN BORACIC-ACID PRODUCTION.—Boracic acid in its native form exists in large quantities at several places in the provinces of Pisa and Grosseto in Tuscany (Italy), the works of Count de Larderel at Monte Cerboli, which produce annually about 40,000 cwt., being especially well known. There are, according to a statistical work of Professor Garollo, twelve boracic-acid establishments in the two provinces, and he estimates their annual output at over 60,000 cwt. All the boracic-acid works of Tuscany are in the hands of four different proprietors; they do not act as direct exporters, but sell to merchants in Leghorn. In spite of the claims of other antiseptics, the demand for the boracic acid of Tuscany continues a large one. There was a drop of 8,000 cwt. in the export of 1892 (1889: 33,222 cwt.; 1890: 40,462 cwt.; 1891: 38,283 cwt.; 1892: 29,793 cwt.); but this falling-off is rather to be attributed to the general slackness of trade than to any causes particularly affecting this branch of it. The shipment to England is always large. Of the 38,283 cwt. exported from Leghorn in 1891, 27,807 cwt. were sent to the United Kingdom, almost the whole of the remainder being taken by the United States of America, Russia, Belgium, and France. Borax (not native, but having boracic acid as its source) is also produced in considerable quantities in Tuscany. The export of borax and borate of soda in 1890 was 14,889 cwt. (7,361 cwt. to England), in 1891, 12,341 cwt. (7,005 cwt. to England), and in 1892, 14,323 cwt.

New Companies.

BRITON FERRY AERATED WATER COMPANY (LIMITED).—Capital 1,000*l.*, in 5*l.* shares. To carry on the business of manufacturers of mineral and aerated waters, cordials, and other beverages, &c. The first subscribers (who take one share each) are:—L. Jenkins, Briton Ferry, merchant; C. Woodward, Briton Ferry, butcher; A. Steel, Briton Ferry, accountant; W. Green, Neath Road, Briton Ferry, engineer; M. H. Jones, Thomas Street, Briton Ferry, accountant; J. Tallamy, Grandison Street, Briton Ferry, accountant; J. Hill, Briton Ferry, merchant. Registered without articles of association. Office, The Works, Metropolitan Yard, Briton Ferry.

FOWLER SPÉCIALITÉ COMPANY (LIMITED).—Capital 5,000*l.*, in 1*l.* shares. Objects: To purchase certain formulae, the property of William R. Fowler, of Southsea, comprising medicines, skin-preparations, hair and teeth preparations, sanitary fluids and powder, &c., to the number of 150, and to carry on the business of manufacturers, dealers, &c. The first subscribers (who take one share each) are:—W. R. Fowler, 21 Victoria Grove, Southsea, pharmaceutical chemist; P. Murch, Derby Road, Portsmouth, engineer; A. R. Holbrook, Campbell Road, Southsea, newspaper proprietor; B. Murtough, St. George's Square, Portsea, mineral-water manufacturer; F. W. Morgan, Fawcett Road, Southsea, inn-keeper; J. Bishop, Grove Road, Southsea, boat manufacturer; C. H. Fowler, 354 Commercial Road, Portsmouth, surgeon. Registered without articles of association. Office, 28 Chetwynd Road Southsea.

FACSIMILES OF AUTOGRAPH PRESCRIPTIONS are a feature in the graduation examinations at the Philadelphia College of Pharmacy. This appears to be the first Examining Board to employ zincography for examination purposes.



Notice to Retail Buyers.—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., July 13

The Cinchona Supplies.

A telegraphic report from Java states that the shipments of cinchona bark from that island during the month of June reached the unusually large figure of 900,000 Amsterdam lbs. This brings up the total for the Java season 1892-3 (July 1 to June 30) to 7,900,000 Amsterdam lbs., which is the heaviest crop on record. Add to this that the shipments for the first half of the present year amounted to 4,000,000 Amsterdam lbs., an unprecedented figure for that period, and that the average quality of the bark is steadily, if slowly, improving, and it will be seen that the sudden decline of 25 per cent. at last week's public sales in Amsterdam was by no means unjustified. The unit value for Java bark is at present equal to only $\frac{2}{3}$ d. per lb., London terms, and it is possible that this drop may have the effect of drying up to some extent the enormous flow of the bark supplies from Java. The Ceylon shipments are gradually dwindling, but the deficit from that island does not balance the excess of the Java exports. Our London stock on July 1 is returned at 37,944 bales only, against 45,310 in 1892, and 53,338 in 1891.

ACETANILID.—The recent advance in price has not been maintained. The article is now even cheaper than it was before the late alteration, 1s. 6d. to 1s. 6 $\frac{1}{2}$ d. being the current quotation.

ACID (CITRIC).—Much higher. Makers now ask 1s. 6 $\frac{1}{2}$ d. per lb. for B.P. quality, and second-hand holders require 1s. 6 $\frac{1}{2}$ d. per lb.

ALOES.—Among the imports this week is a parcel of 270 boxes *Curaçao* aloes from New York. The *Cape* steamers have brought no further supplies from South Africa.

CAMPHOR (CRUDE).—Another accident was reported to have overtaken a camphor-cargo last week, the *Bellona*, with 3,200 piculs on board, having run ashore (it was said) off Almeria, in Spain. The report, however, seems quite unfounded, and the ship is soon expected to arrive in London. In London the market for *Japan* camphor is firmer, but no sales are reported. Nominally 155s. is asked. For *China* 130s. has been paid, and to arrive 120s. c.i.f. is quoted.

CANARY-SEED is cheaper. Supplies are coming in freely, and at auction on Wednesday 433 bags *Turkish* seed were again sold "without reserve" at 55s. 6d. to 58s. for fair to good quality.

CHAMOMILES.—The new Belgian crop is said to be rather more than half an average one. Good pale flowers are offering at the reduced price of 97s. 6d. per cwt., deliverable in about a fortnight.

CHLORATE OF POTASH.—The market has assumed a much livelier tone, and the prices show some improvement; a fair business is said to have been done, at 7 $\frac{3}{4}$ d. to 7 $\frac{1}{2}$ d. per lb. for prompt, 7 $\frac{1}{2}$ d. for September-December, and 6 $\frac{1}{4}$ d. for next year's delivery. The makers ask 8 $\frac{1}{2}$ d., spot.

CINCHONA.—The fortnightly auctions which were held on Tuesday were among the most insignificant in point of quantity, as well as of quality, which have ever taken place in London. The eight catalogues comprised:—

	Packages	Packages
Ceylon cinchona ..	617 of which	543 were sold
East Indian cinchona ..	215 "	216 "
West African cinchona ..	32 "	32 "
Javan cinchona ..	23 "	"
Cuprea bark ..	153 "	153 "
	1,036	949

The assortment was an exceedingly poor one, the bulk of the lots shown consisting of low-class natural *Succirubra* and *Ledger* barks, probably containing less than 2 $\frac{1}{2}$ per cent. of quinine. The highest price realised for any lot at the auctions was 4 $\frac{1}{2}$ d. per lb. The tone was a very dull one, and prices fell considerably, in sympathy with the heavy decline established at the last Amsterdam auctions. A rather larger proportion than usual was bought by druggists, but the average unit cannot be placed above $\frac{2}{3}$ d. per lb., the lowest on record. The following were the prices paid for sound bark:—

CEYLON CINCHONA.—*Original*—Red varieties: Dust, $\frac{3}{4}$ d.; low shavings and sittings, $\frac{1}{4}$ d. to 1d.; fair shavings, 1 $\frac{1}{4}$ d.; common to medium stem and branch chips, $\frac{3}{4}$ d. to 1 $\frac{1}{2}$ d.; root, 1 $\frac{3}{4}$ d. per lb. Grey varieties: Ordinary to fair quilly stem and branch chips, 1 $\frac{1}{4}$ d. to 2d.; dull root, 1 $\frac{1}{4}$ d. per lb. Yellow (*Calisaya*) fair chips, 4 $\frac{1}{2}$ d. per lb. Low Hybrid chips, $\frac{3}{4}$ d. per lb. *Renewed*—Ordinary to good red chips, 1d. to 2 $\frac{1}{2}$ d.; medium to fair grey ditto, 2 $\frac{1}{4}$ d. to 3 $\frac{3}{4}$ d. per lb.

EAST INDIAN CINCHONA.—*Original*—Red varieties: Common to medium quilly chips, 1d. to 1 $\frac{1}{2}$ d.; low sweepings, $\frac{1}{2}$ d. per lb. Grey varieties: Ordinary dull to fair quilly stem and branch chips, 1 $\frac{1}{4}$ d. to 2d.; good root, 3 $\frac{3}{4}$ d. to 4d. per lb. *Renewed*—Ordinary red chips, 1d. to 1 $\frac{1}{2}$ d.; grey ordinary to fair stem and branch chips, 2d. to 4d. per lb.

WEST AFRICAN CINCHONA.—Only 32 bales of this variety, fair but rather irregular quills of *Succirubra* character: these were all sold at 2 $\frac{1}{2}$ d. per lb.

JAVA CINCHONA.—Twenty-eight bales *Ledger* bark were offered, but all bought in.

SOUTH AMERICAN BARK.—The only parcel shown at auction was one of 153 serons *Cuprea*, imported in June, 1893, and weighing about 130 lbs. a piece. The whole of this bark was sold, partly to manufacturers and partly to druggists, at $\frac{1}{2}$ d. to $\frac{3}{4}$ d. per lb., a few lots realising $\frac{3}{4}$ d. per lb.

The following figures relate to the exports from Ceylon, between January 1 and June 19:—1893, 2,226,731 lbs.; 1892, 3,017,849 lbs.; 1891, 2,563,435 lbs.; 1890, 4,096,658 lbs. The average unit obtained at last Thursday's auctions in Amsterdam is the lowest on record in the history of the bark. The total quantity-equivalent of sulphate of quinine sold was 12,386 kilos., at an average unit of 3.55 cents, but including 794 kilos. at 3 cents, and ranging thence up to 4.25 cents, at which last-named figure 386 kilos. found buyers. The greater part of the bark offered (representing 12,720 kilos. quinine) was bought in. The tone throughout the auctions was one of increasing listlessness, the unit being 0.5 cent lower at the end than at the beginning. The principal buyers were the Pharmac. Trading Company (3,218 kilos.), Mr. Gustav Briegleb (3,164 kilos.), Mr. H. A. C. Wischerhoff (2,655 kilos.), the Amsterdam Quinine Works (1,837 kilos.), and Mr. J. J. Louet Feisser (1,512 kilos.). Druggists' barks were in rather better request, and fine quills were held for comparatively high prices. The next Amsterdam sale will be held on August 31. The richest parcel in the sales was one of 7 bales *Ledger* stem bark, testing 9.53 per cent. sulphate of quinine, for which 37 cents (7 $\frac{1}{2}$ d.) per half-kilo. was paid.

CLOVES.—*Zanzibar* cloves have been flat all through the week. On the spot fair quality has brought 2 $\frac{3}{4}$ d. per lb. For delivery lower prices have been accepted—viz., 2 $\frac{3}{4}$ d. to 2 $\frac{1}{2}$ d. per lb. for October-December. At auction a small quantity of *Zanzibar* cloves sold at a fresh reduction: ordinary to good fair at 2 $\frac{1}{2}$ d. to 2 $\frac{3}{4}$ d. per lb.

COCA-LEAVES.—There have been heavy arrivals of good bright green *Truxillo* leaves in Liverpool; 1s. has been asked for them, but it is doubtful whether more than 10d. could be obtained at present. Advances from Peru, on the other hand

indicate the scarcity of coca-leaves, and report higher prices as likely.

COLOCYNTH.—The demand remains slight, ordinary broken to good pale Turkey apple being priced at 8*d.* to 1*s.* 1*d.* per lb. The stock is only moderate.

CUBEBS.—The stock of cubebs in Holland is steadily increasing, and the best price obtainable for bold berries is now equal to about 50*s.* per cwt. (30 cents. per half kilo.), a figure which the holders are scarcely inclined to accept.

ERGOT OF RYE.—It is reported that the new Spanish crop will be a small one, and that it will be harvested very early in the year. At present owners talk of 2*s.* 9*d.* per lb. as a likely price; but they invite offers. Ordinary German ergot has sold privately at 1*s.* 9*d.* per lb. this week, and old Spanish, rather wormy, at 2*s.*; but for a parcel of very fine Spanish, ergot 2*s.* 4*d.* has been paid. From Germany the price is still 1*s.* 8½*d.*, e.i.f. terms, although some holders have withdrawn their supplies altogether.

GINGER is dull of sale. At auction only a few lots of Jamaica root sold at 65*s.* per cwt. for ordinary dull quality; all the Cochín, African, and Japan root offered being bought in.

GUM ACACIA.—*Soudan* gums neglected, and saleable only at lower rates. Nominally the quotations are still from 55*s.* to 65*s.* per cwt. according to quality. *Talea* and *Gehzirah* gums are not offered at present. *Persian* gums are very neglected at the prices now asked by holders, though there would be buyers at reduced rates.

GUM TRAGACANTH.—The public sales last Friday were heavy, and of 1,255 packages offered a portion sold (holders being anxious to realise) at an all-round decline for Bagdad gums as compared with the preceding auctions. Hog gums also sold at easier rates. The following prices were paid:—*Smyrna*: Fair to good firsts, 11*l.* to 12*l.* 10*s.*; yellow to good seconds, 10*l.* to 10*l.* 17*s.* 6*d.*; fair to fine pale thirds, 7*l.* 15*s.* to 10*l.*; fourths, 6*l.* to 7*l.* 10*s.*; vermicelli, 5*l.* 10*s.* to 7*l.* 12*s.* 6*d.* per cwt.

HONEY.—The stocks of old *Chilian* honey are heavy, and it is said that the new crop is a very large one. The Californian crop is also described as much above the average in quantity.

IPECACUANHA.—Sales of fair quality *Cartagena* root are reported this week at 4*s.* 3*d.* per lb. The imports of ipecacuanha into the States have been:—

1883	1884	1885	1886	1887	1888	1889	1890	1891	1892
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
35,648	18,066	27,355	12,427	29,560	20,387	34,034	29,541	30,484	38,329

JALAP.—Although the reports from America seem to indicate the prospect of lower rates, the London holders are generally firm. One of them tells us that he has sold best *Vera Cruz* root at 1*s.* 1*d.* per lb., and has now raised his second quality from 1*s.* to 1*s.* 1*d.*

OIL (COD-LIVER).—For best non-congealing Norwegian 55*s.* per barrel is asked; the bid of 50*s.* for a considerable quantity was recently refused.

OILS (ESSENTIAL).—The following figures refer to the shipments from Ceylon, of some essential oils in the periods from January 1 to June 19:—

	1893	1892	1891	1890
	Oz.	Oz.	Oz.	Oz.
Citronella and lemongrass ..	4,498,803	4,659,000	6,044,681	5,154,024
Cinnamon leaf and bark ..	63,526	60,368	96,264	35,127

For Mitcham *Peppermint*-oil of fine quality 33*s.* to 34*s.* per lb. is still asked; the prospects of the new crop are as yet uncertain. Japanese oil of peppermint is reported rather higher, 8*s.* 6*d.* per lb. being now asked for fair quality by some holders. For *Menthol* 11*s.* 6*d.* has been paid on the spot, but July shipment is offering without engagement at 10*s.* 6*d.* per lb., e.i.f. terms. *Oil of lemon* is reported cheaper from Italy, 5*s.* 9*d.* per lb., e.i.f., being now quoted for fair quality. *Star-anise* oil is reported dearer,

Sales have been made to arrive at 5*s.* 2*d.* per lb., e.i.f., and now 5*s.* 2½*d.* to 5*s.* 3*d.* per lb., e.i.f., is asked. *Cassia* oil has sold privately at 3*s.* 4*d.* per lb. on the spot.

OIL (EUCALYPTUS).—One of the New Zealand banking firms now in financial difficulties is believed to be a very considerable holder of eucalyptus oil, and it is feared that its stock may be thrown upon the market, in which case prices are very likely to decline.

OLIVE OIL.—It is reported from Leghorn that although the prospects for the new crop are as bright as they could be, there has, nevertheless, been a better inquiry, chiefly because the available stocks of all grades, especially of the finer eating oils, are known to be very small. Messina oil is quoted here at 35*s.* 6*d.*, Spanish at 35*s.*, Mogadore at 32*s.* per cwt.

OPIUM.—The London market has been almost stagnant; fine grades are generally firmly held, but the commoner kinds are not altogether so steady as they were. The following are the current quotations:—*Soft shipping*, good to fine, 13*s.* to 14*s.*; *Druggists'*, good to fine, 11*s.* 6*d.* to 12*s.* 6*d.*; seconds, 11*s.* to 11*s.* 6*d.*; ordinary to fine *Constantinople* kinds, 11*s.* to 12*s.* 6*d.*; *Persian*, from 9*s.* to 12*s.* per lb. Our Smyrna correspondent writes, under date of June 30:—“About 140 cases of manufacturing opium have been sold this month, 30 of which were bought at the comparatively low prices of 10*s.* 6*d.* to 10*s.* 9*d.* per lb., f.o.b., but prices were gradually run up to 12*s.*, and 50 Yerli talequale were taken by our large American buyer at the equivalent of 12*s.* 4*d.*, f.o.b. Since then, however, our market has been very quiet, and speculators are now only offering 11*s.* 7*d.* to 11*s.* 8*d.* for current talequale. The harvesting of the new crop is now general all over the interior, and, according to the advices from the opium districts, it will not exceed 2,000 cases. The Salonica crop is estimated at 300, Malatia 400, and the other qualities, which find their way to the Constantinople market, are expected to yield 400—a total crop of 3,100 cases. It remains to be seen how prices will rule later on, but a good deal will depend upon the demand for America.” A Constantinople correspondent writes, under date of July 1:—“Besides 19 cases Tokat bought for America at 11*s.* 7*d.* to 1*s.* 8*d.* per lb., f.o.b., speculators have taken 10 cases at 10*s.* 3*d.* to 11*s.* 6*d.* per lb. There is now a general lull, pending something definite transpiring as to the crop out-turn, and also owing to the financial crisis prevailing in America, which induces buyers to keep off. The market is steady at 10*s.* 9*d.* to 11*s.* 3*d.*, f.o.b., for druggists' kinds. Our estimate of the new crop remains at 3,000 cases maximum. The Dutch Government have stated their intention of receiving bids for 300 cases only this year, though in all probability they will be open for more, say, 400 to 500 cases.”

ORRIS ROOT.—In Italy supplies are getting very scarce, and prices have consequently advanced. For fine selected *Florentine* root 100*s.* per cwt., f.o.b., has been paid. Commoner grades are wanting for the moment. Fine first quality *Verona* root, also the only kind of this description which is offered, has realised 80*s.* per cwt., f.o.b.

OTTO OF ROSE.—A report which has just been received from Mr. Holstein, a well-known dealer in otto of rose, states that the crop is now all harvested, and has given a result of 380,000 meticals of about 1,800 kilos. The distilling began three to four weeks later than usual, and at first it looked as if the crop would be a poor one; but, owing to the genial and moist weather prevailing during the gathering, the result is not so much below the average as had been expected. The crops for the four preceding years were:—1892, 280,000; 1891, 450,000; 1890, 520,000; 1889, 550,000 meticals. Last year at harvest-time there was still an old stock left in Bulgaria of 50,000 meticals; but this season there are no old stocks whatever, and what has now been harvested; is the total available in the hands of the trade. If, therefore, any considerable demand should set in, it is likely that there will be a progressive rise in the quotations. The new prices will be fixed towards the beginning of August.

QUASSIA.—The market is still falling rapidly; holders are asking 6*l.* per ton for logs, but would sell below that figure.

QUICKSILVER.—Dull, and ebbing slowly. The importers still hold for 6*l.* 17*s.* 6*d.*, but second-hand owners offer at

6*l.* 15*s.* 6*d.* According to official returns, the exports of quick-silver from Leghorn were:—

Year	..	1889	1890	1891	1892
Cwts.	..	7,761	8,857	10,823	5,115

QUININE is lower. On Saturday 5,000 oz. second-hand German bulk sold at 9*d.* per oz., and on Wednesday a deal of 5,000 oz. is said to have taken place, at 8½*d.* per oz., prompt cash.

SHELLAC.—Last week closed with an easier market, sales of orange lac (TN) for August delivery being reported at 109*s.* per cwt. At auction 612 cases were offered, of which 126 sold at a decline of about 3*s.* per cwt. on second orange. Ordinary button lac was also easier, but garnet remained fairly steady. The following prices were paid:—Second orange, unworked, good bright, partly hard block, 107*s.* 6*d.*; Button, low to slightly resinous, unworked, seconds, 85*s.* to 107*s.* 6*d.* per cwt. Garnet lac sold privately at 94*s.* per cwt., cash terms. After the sales shellac closed flat and lower, with sales at 106*s.* per cwt. for August delivery.

SULPHATE OF COPPER.—Our last week's Liverpool quotation was inaccurate. The price for the Macclesfield brand is now, and has been for some time, 15*l.* 15*s.* f.o.b.; London quoting 15*l.* 15*s.* to 16*l.* 5*s.*, according to brand.

TEA.—A fair trade has been done this week in the new Monings, the market having had time to settle down a little and realise that Congous have not, after all, quite gone out of consumption. Some very good pure Oonfas, between 8*d.* and 1*s.*, and flavoury Kintucks, from 10*d.* to 1*s.* 1*d.*, have found a ready sale both for home trade and export, and some of the earlier purchases of medium to fine Kintucks have been resold at profits on the market. Capers are going off slowly, in spite of the reduced shipments to date, for everyone, both on the market and in the country, has a good deal of old Caper left, showing, in most cases, far better value than new tea. Indians are unchanged; but it is an uninteresting market just now, for there are very few really good liquoring old teas left, and the demand for new Darjeeling and Dooars teas is limited. Ceylons are very steady both for common and fine sorts, and with small sales for the week anything "spotty" in liquor was well competed for.

VERATRINE.—It is stated that the price has been fixed for the present at 8*s.* per oz. *Cevadilla seeds* cannot now be had below 3*s.* 6*d.* per lb.

THE LIVERPOOL MARKET.

CALABAR-BEANS.—Forty bags just arrived have sold at 1½*d.* per lb.

CANARY-SEED.—Firmer again; holders have strong views. Sales of good Turkish have taken place at 65*s.*

GINGER.—Stocks of *African* are becoming limited, and the advance noticed last week is continued, 68 bags selling at 48*s.*

HEMP-SEED.—Fifty bags fine bold Chilian has sold at 37*s.* 6*d.*

OIL (CASTOR).—The price for good seconds *Calcutta* during the week advanced to 2½*d.*, while some holders talk of 2½*d.* *French* first pressure is still held at 2½*d.* to 2½*d.*

THE SMYRNA OPIUM MARKET.

(Telegram from our Correspondent.)

SMYRNA, July 12.

OUR market has declined several pence this week, sales of fair quality manufacturing-opium having taken place to-day at the rate of 11*s.* 1*d.* per lb., f.o.b. here. The outlook is uncertain: on the one hand the crop is sure to be very small, on the other the financial crisis in America and elsewhere is causing buyers to hold off.

ALL the chemists' shops in Pittsburgh have received a notification from Messrs. Schieffelin & Co., New York, importers of drugs and chemicals, that all payments of the retail trade for these articles must be made in gold.

LONDON DRUG STATISTICS.

THE following figures refer to the stock of drugs in the London warehouses on June 30, and to the imports and deliveries during the first six months of 1893 and 1892 respectively:—

Article	Stocks		Imported		Delivered	
	1893	1892	1893	1892	1893	1892
Aloes cs & pkgs	4,741	6,270	895	1,621	1,957	2,453
" gourds	695	1,077	198	—	304	28
Anise, star chts	665	207	691	220	265	55
Arrowroot.....cks	9,737	6,409	12,435	10,922	7,981	7,441
" bxs & tins	1,521	700	1,671	1,217	584	1,470
Balsams.....cks, &c.	1,330	1,588	502	427	525	713
Bark (Cinchona),						
S. American cases	67	378	16	27	5	21
" bils, &c.	21,665	25,284	3,801	6,325	5,144	7,532
E. I., Ceylon, and						
Java cs	156	184	57	132	44	216
" bils.	16,113	19,879	20,645	19,796	20,270	21,529
Borax pkgs	5	261	20	—	276	—
Calumba " "	1,023	479	1,385	160	862	323
Camphor " "	3,443	3,570	6,115	4,614	5,399	4,771
Carlamoms chts	744	798	1,397	1,546	1,193	1,561
Cassia Ind. bgs, &c.	435	1,044	—	816	232	264
Creos. of tartar cks	10	10	2	1	3	1
Cubebs bgs	257	63	308	183	370	207
Dragon's Blood chts	133	133	113	169	98	125
Galls, China, &c. cs	2,067	2,187	2,479	1,993	907	1,435
Trky & Prsn.....sks	3,171	3,359	2,726	2,572	1,792	1,526
Gums—						
Ammoniacum pkgs	118	206	4	264	32	124
Anini & Copal pkgs	11,762	11,069	10,571	14,008	8,962	8,933
Acacia..... " "	12,468	13,230	11,471	9,409	11,144	13,511
Asafetida " "	4	419	337	260	417	361
Benzoin " "	3,103	2,463	2,347	1,317	1,341	1,881
Damar " "	4,299	4,584	3,279	2,726	2,560	2,407
Galbanum " "	30	31	1	—	2	5
Gamboge " "	69	71	68	164	156	123
Guaicum " "	185	187	60	95	70	35
Kino " "	7	2	9	10	4	15
Kowrie tms	950	1,242	1,425	1,689	1,375	1,491
Mastic pkgs	29	21	29	—	21	10
Myrrh " "	318	219	367	112	273	253
Olibanum " "	4,332	5,893	7,586	6,510	3,576	4,890
Sandarac " "	809	1,054	556	1,262	696	642
Tragacanth " "	2,330	3,217	3,959	3,538	2,377	4,008
Guttapercha tms	2,605	2,882	621	1,272	610	988
Indianrubber, E.I.,	109	148	313	360	362	491
Madagascar " "	127	75	231	137	225	175
S. American " "	59	80	164	144	154	120
African, &c. " "	83	170	92	179	198	214
Ipecac.....cks & bgs	633	347	932	715	1,010	783
Jalap bils	196	84	412	295	272	248
Lac Dye chts	4,871	4,946	—	—	16	24
Nux Vomica pkgs	709	1,310	1,167	2,609	1,062	1,764
Oils—						
Castor.....cks	49	135	253	341	339	281
" cs	1,494	2,407	1,978	2,047	2,185	3,037
Cocoa-nut tms	798	1,414	1,702	1,544	1,677	2,087
Olive cks, &c.	1,678	1,502	2,300	1,855	1,137	1,127
Palm tms	16	27	33	55	24	47
Rhubarb chts	866	276	566	515	707	616
Safflower bils, &c.	83	120	71	26	45	127
Sarsaparilla bils	331	330	639	579	773	583
Senna bils, &c.	2,139	1,831	2,540	833	1,937	1,836
Shellac						
Orange chts, &c.	24,146	25,509	18,665	15,705	14,813	15,957
Garnet " "	6,426	8,466	7,035	11,373	4,473	4,850
Button " "	3,203	6,277	4,496	4,793	4,719	5,003
Total " "	33,775	41,252	30,196	31,817	24,005	25,800
Sticklac chts, &c.	1,659	170	3,484	124	2,015	305
Gambier tms	482	1,216	4,916	5,305	4,941	5,881
Cutch " "	2,014	2,851	1,401	1,930	1,481	1,551
Turnerie, Beng. tms	79	116	141	17	124	346
Madras, &c. " "	270	337	392	476	285	264
Total " "	349	453	533	493	409	610
Vermilion, ... " "	79	55	30	55	19	24
Wax (bees') bils & cs	484	1,273	2,308	2,225	2,761	1,804
" sks	1,135	1,349	1,254	1,356	1,677	966
" cakes	42	42	—	28	—	—
" (Japan) pkgs	1,155	808	1,230	625	497	441

* Stock of Pará rubber at Liverpool, 621 tons; other sorts, 1,096 tons—total, 2,107 tons, against 1,754 tons last year and 2,529 tons in 1891.



DISPENSING NOTES.

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the under-mentioned topics.

Chromic Acid and Glycerine.

SIR,—Perhaps you will permit me to call attention to an explosive combination which might easily cause disastrous results in the hands of the unwary dispenser. It may not be news to all; but it came as news to me, and possibly others may be as ignorant as myself.

I had occasion to prepare a solution of chromic acid for application to the throat, and after I had measured out the chromic acid (a saturated solution in water) into the glass it occurred to me to add some glycerine in order to render the solution more viscid. No sooner did the glycerine come into contact with the acid than a strong ebullition, almost amounting to an explosion, resulted, projecting the acid all over me. Fortunately the eyes were protected by glasses, otherwise the consequences might have been serious, seeing that chromic acid is a caustic of considerable activity.

I have not had the courage to try whether the addition of glycerine to a dilute solution of chromic acid has a similar effect, preferring to take my chromic acid *sine* glycerine in future.

I am, Sir, yours faithfully,

ALFRED S. GUBB, M.D.

A Chemical Problem.

71/50. *G. M.* wishes to know the number of reactions likely to take place in the following prescription, and whether the doctor who wrote it would recognise it again if written in accordance with the ultimate product:—

Bismuth. carb.	..	..	..	..	3ij.
Liq. potassæ	..	..	..	..	3ij.
Magn. sulph.	..	..	..	..	3vj.
Spt. ammon. arom.	..	..	..	..	3ss.
Dec. aloes conct. ad	..	..	..	..	3viii.

M.

[The principal reactions would seem to be between the liq. potassæ and the alkaline constituents of the spt. ammon. aromat. with the magnes. sulph., hydrated carbonate of magnesia being formed, a little of the colouring-matter of the decoction being mechanically carried down. We do not care to go fully into any matter prompted simply by "curiosity." You will find "The Art of Dispensing" useful for reference in such cases.]

A So-called Lotion.

73/18. *T. S.* wishes to know how the following prescription may be satisfactorily dispensed:—

Ungt. zinci oleatis	..	..	..	..	3vj.
Lanolin	..	..	..	..	3iv.
Liq. plumbi	..	..	..	..	3iv.
Ac. hydrocyan. dil.	..	..	..	..	3j.
Aq. calcis ad	..	..	..	..	3viii.

M. Ft. lotio.

[It is impossible to make a satisfactory preparation if strictly followed, the soft paraffin in the ointment of the oleate being the hindrance; but by using olive oil in place of the paraffin, and freshly-prepared lime-water, a satisfactory creamy ointment is obtained, not a lotion. Melt the oleate, oil, and lanolin in a porcelain basin over a water-bath; add the lime-water gradually, being certain that each portion is thoroughly incorporated before adding the next; then re-

move from the water-bath, add the liq. plumbi gradually, and, lastly, the hydrocyanic acid. Send out in a wide-mouthed bottle.]

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY page 152 et seq.

73/53. *Beccabunga*.—If ung. gallicæ is "a preparation of opium," it must be labelled "Poison" when sold. The enforcement of this provision does not rest with the Pharmaceutical Council: the police or anybody may prosecute.

74/64. *D. E. M.*—The Commissioners of Inland Revenue do not require a licence for armorial bearings to be taken by any shopkeeper in respect of the use of armorial bearings or devices used solely as trade-marks and in the course of trade. Your label, we should judge, would come within this exemption.

74/10. *Legality*.—It was claimed years ago by the Pharmaceutical Society that under the Pharmacy Act, 1852, only pharmaceutical chemists had the right to describe their establishments as pharmacies, but they never took the contention into court and would not now be likely to establish it if they did.

74/32. *Euonymin* from Corbyn's is going into partnership with his father, and wants to know if it will be illegal to announce over the shop "Euonymin & Son, from Corbyn's," or whether the exact fact can be better conveyed. The question is one which, as a matter of law, only concerns "Euonymin" and Corbyn's. If the latter firm have no objection we do not see who else could. It would be right and prudent to communicate with them. They could, no doubt, if they thought it desirable, get an injunction to prevent the publication of the inaccurate statement that "Euonymin," senior, had been with them. A way to state the fact correctly and effectively would be thus:—

EUONYMIN & SON,

A. Euonymin,
Chemist and Druggist.

Z. Euonymin,
Chemist and Druggist
(from Corbyn & Co.).

249/14. *Lymm*.—It is not necessary—it would not be legal, indeed—for the qualified manager to an executor to use his own name on labels of poisons sold by him on behalf of the executors. The strictly correct form is "Executors of the late John Blank, chemist and druggist," but there is practically no objection to the widow (if she is the executrix) using her own name, or, as is more usual, continuing the business under the name of the chemist deceased.

75/53. *Omnia* reports the case of a person not registered under the Pharmacy Act who makes and sells a foot-rot application containing corrosive sublimate and labelled "Poison." "Omnia" has told this person that none but registered chemists can sell preparations containing corrosive sublimate, and that the sale must be registered by the vendor; that the fact of his having patented it does not enable him to sell the poison; and that as a preparation for foot-rot, containing all his ingredients, was made by "Omnia" during his apprenticeship, the patent could not be valid.

[The preparation, being patented, comes within the exemption applicable to "patent medicines"—that is, it may be sold by unregistered persons. It is not necessary to register sales of it: preparations of corrosive sublimate are in the second part of the schedule. The patent must be assumed to be valid until someone has proved it to be otherwise. Meanwhile we think the Courts would hold that the preparation was a patent medicine within the meaning of the Pharmacy Act.]

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers, containing formulae, educational or other specific information can be obtained from the Publisher.

64/74. *Hair-wash*.—Your specimen is a catkin of a poplar.

70/26. *G. C.*—Refer to Educational Number of THE CHEMIST AND DRUGGIST, September 17, 1892.

70/57. *Specs.*—Chavasse's "Advice to a Wife," and the same author's "Advice to a Mother," both published by Churchill at 2s. 6d., would perhaps suit you.

63/38. *D. G.*—Green-ginger Wine.—This should make a nice article:—

Demerara sugar	..	..	..	..	7 lbs.
Water (hard)	..	..	..	..	4 gallons.

Boil a quarter of an hour and skim occasionally until cold. Squeeze in the juice of two lemons and boil the peel and 2 oz. of best ginger in 3 pints of water for an hour; add the liquids together in a barrel with 2 spoonfuls of yeast, 2 lbs. of raisins, and 1 oz. of isinglass. Close up the barrel, and leave it for seven weeks before bottling.

69/42. *Querist*.—Spanish Clay is useful for clarifying liquids which may contain citric, tartaric, acetic, and salicylic acids. We presume this is what you mean by being compatible. Salicylic Acid is the best preservative for all ginger and other summer beverages; boric acid for milk. Dissolve the acid in spirit of wine before adding to the beverages. Otto of Rose does not make a perfectly clear solution in spirit of wine, cold; absolute alcohol will dissolve it completely.

69/44. *Cattle-oils*.—In the formula we gave for Cattle-oils at page 872, for linseed oil, 4 parts, read 4 pints. The Dose for a Pig would be one tablespoonful; it would be quite safe.

68/64. *Jean*.—We do not know what manicures use for Softening the Skin round the Nails, but think you will find this useful:—

Liq. potassæ	..	..	..	..	5ij.
Aq. ros. trip.	..	..	..	..	5ij.
Glycerini	..	..	..	..	5iv.

Apply night and morning with a fine camel's-hair pencil.

64/4. *Country Chemist*.—Inflammation-drops:—

Tr. benzoin. co.	..	..	..	..	5j.
Tr. camph. co.	..	..	..	..	5j.
Spirit. camph...	..	..	..	..	3s.

M.

One teaspoonful for a dose.

Books:—Simple manuals for *Prescribing*: Begbie's "Information and Advice" (2s. 6d.), Squire's "Companion," and Tanner's "Index of Medicine"; *Surgery*: Pye Smith's "Manual on Surgery and Bandages," the handbooks issued by the St. John's Ambulance Society, and Heath's "Minor Surgery and Bandaging" (5s. 6d.); *Water-analysis*: Wanklyn's "Water-analysis" is the best. Quintum, a preparation for preserving steel, we do not know, but presume it is some sort of grease or unguentum.

66/60. *Verax*.—Glycerine Vaccine-lymph.—Yes; glycerine is undoubtedly an antiseptic. On some very stable organisms it seems to have little or no effect, but on most bacteria it acts—slowly, it is true, yet none the less surely.

71/16. *W. R. H.*—When the full account of Dr. Copeman's investigations appears we will inform you where it is to be found.

69/60. *T. V.* asks for a cure for Headache due to Working with Dynamite. We should say that the most certain cure would be to leave the dynamite alone. If this is impossible, then quinine may be tried, for it corrects the vascular disturbances produced by nitro-glycerine. The quinine should be taken in 5-grain doses three or four times daily, and if it fails alone it may be combined with an equal quantity of phenacetin.

65/4. *Syntax*.—The Powder for Putting a Head on Beer is a crude aqueous extract of quillaia-bark. Exhaust the bark by maceration and percolation with hot water, and evaporate to the consistency of an extract at as low a temperature as possible; then add sufficient sugar of milk, potatoe-starch, or ground chicory to form a powder and to suit your price.

71/64. *Guitar* wishes to know what Benzoïnol is; it is used apparently as a vehicle for the external application of menthol and cocaine. It is a heavy and colourless petroleum oil, sent out, we think, by a London firm.

71/8. *Lithion Quelle*.—Birdlime is made either from mistletoe-berries, holly-bark, or service-tree bark. From the berries by boiling in water until they break, pounding in a mortar, and washing away all refuse with fresh water. To make it from bark, the trees are stripped in June or July, and the bark boiled in water six or eight hours until tender, then squeezed free from water, laid in layers with fern-fronds between, and allowed to stand for some weeks, until it ferments and becomes mucilaginous; finally it is pounded in a mortar, and rubbed with the hands under water, and put aside in an earthenware vessel for some weeks before using. For Sticky Fly-gum, see answer to *L. W. B.* (61/39), in last week's issue. You will judge from the foregoing that birdlime is a thing that you are not likely to attempt to make; but an artificial kind is made by boiling linseed oil until it becomes stringy.

INFORMATION SUPPLIED.

Eczema—I suffered with my hands for years and nothing that you recommend did my case any good. So much depends on the party attacked, as to what will relieve this annoying disease, more often than not brought on and increased by continuing something that disagrees with the system. I now know what would make me as bad as ever if I returned to certain food and treatment. Only in case you know the party is it worth while to help the case.

25 Lime Street, E.C.

THOS. CHRISTY.

In your reply to "Yorks" (61/52) you mention "ochim cinderbary" as unknown to you; here it is commonly asked for as "ochim cinderbary," "ockle o' indebery," &c. What is intended is *Cocculus Indicus*, and is so supplied. I think you will find this is intended if the purpose of the purchaser is ques ioned.

Carlisle.

ALLICHOE. (75/34.)

Hartshorn Dregs is the name given here to ol. animalis, and is used to put upon lambs to keep away foxes.

GEORGE R. COOK, Laceyby, Grimsby.

You will see in many wholesale lists ol. animalis or ol. cornu cervi quoted about 1s. 6d. per gallon; that is the article.

T. S. (75/51.)

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, post-card replies to the following:—

71/59. Maker of Dr. Wollaston's apparatus for condensing steam.

62/6. What is used for silvering furs? It is a liquid smelling of naphtha and labelled "Poison."

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 &c., &c., &c., &c., &c.

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DEACON v. BURGESS.

In the High Court of Justice, Chancery Division, on Saturday, December 17th, Mr. Justice Kekewich, in delivering judgment, said "that it will be sufficient, I think, and I am sure quite safe now to say that the plaintiff (Mr. H. J. Deacon), who certainly has not proved his knowledge of the genuineness, but who has clearly indicated his ignorance, and who is attempting to sell as genuine medicine that of which he is really ignorant." N.B.—A full report of the Judgment appeared in THE CHEMIST AND DRUGGIST, December 24 last.

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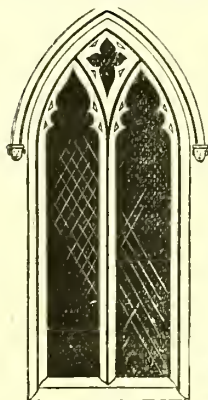
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157,810

36

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Firms desirous of availing themselves of space for Advertisements should communicate at once with The Publisher.

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Guaranteed to keep good indefinitely in all climates.

1/- size	—	—	—	—	—	Per dozen, 10/-	—	—	—	—	Per gross, 105/- net.
2/-	—	—	—	—	—	" 20/-	—	—	—	—	" 210/-
5/-	—	—	—	—	—	" 50/-	—	—	—	—	" 525/-

PUMILINE.

Essence 1/6	—	—	Per dozen, 15/-, less 10 per cent.	Liniment 1/9	—	—	Per dozen, 20/-, less 10 per cent.
" 2/6	—	—	" 24/- " 10 "	Jujubes 1/1	—	—	" 10/6 " 5 "
Extract 1/-	—	—	" 9/- " 10 "	" 2/3	—	—	" 20/- " 5 "
Ointment 1/1½	—	—	" 11/- " 10 "	Dry Inhalers, complete 1/6	—	—	" 14/- " 10 "
" 2/8	—	—	" 27/- " 10 "				

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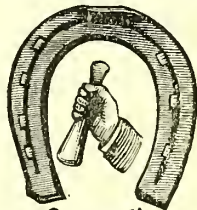
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Glycerine and
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SPECIALITIES:
The Finest & Purest Qua-
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Obtained by the action of Metallic Zinc on
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Discovered to be a general Anæsthetic by Dr.
RICHARDSON in 1857.
1-lb. Stopped Bottle, 1/-; 4-lb. do. 3/-; 4-oz. do. 6d.; 2-oz. do. 3d.
COMPOUND ANÆSTHETIC ETHER
For producing Local Anæsthesia.
In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.
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Dr. RICHARDSON'S Formula, for removing Nævi, &c. In 4-oz. & 1-oz.
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For promoting the Healing of Wounds by the first intention.
In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d.
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CHARCOAL CAPSULES.
Containing Pure Vegetable Ivory
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In Boxes, 2s. 6d. each.

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Maintain their high reputation against all comers for general excellence of quality and finish.

SPECIAL LINES.

	1 lb.	7 lbs.
CHLORATE OF POTASH	1/-	/11
CHLORATE OF POTASH AND BORAX	1/-	/11
COMPOUND SULPHUR	1/-	/11
SODA BICARB.	1/-	/11
SODA MINT.	1/-	/11

NET CASH WITH ORDER.

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A FULL ASSORTMENT OF COMPRESSED GOODS KEPT. PRICES ON APPLICATION.

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LOWER PRICES.

WAND'S SOLUBLE PEARL-COATED PILLS.

MAKE A POINT.

AND DON'T FAIL TO WRITE FOR
NEW LIST, POST FREE.

STUDY Economy by ordering 10-gross lots.

NOTE the Saving by doing this.

MEDICAL AND DRUG JOURNALS assign to WAND'S PILLS the Highest Praise for Elegance of Appearance, Absence of Injurious Varnish, Speedy Solubility, Purity of Ingredients.

Equal in every way to any High-priced Pill Produced. Best Drugs Guaranteed. FINISH UNSURPASSED.

TERMS: - NET FOR CASH WITH ORDER, Carriage Paid in Great Britain and Ireland.

Price per Gross				Price per Gross				Price per Gross			
Un-	5	10	Gross	Un-	5	10	Gross	Un-	5	10	Gross
der				der				der			
OFFICIAL FORMULÆ.				QUININE SULPH., B.P.				THE "LITTLE" PILL.			
1 Pil. Aloes Barb.	0 7 3	0 6 3	0 5 3	203, gr. 1/2	0 8 3	0 5 3	0 4 3	400 Jalapin, gr. 1-16th	0 7 0	0 6 0	0 5 0
3 " Aloes et Ferri	0 7 3	0 6 3	0 5 3	204, gr. 1	0 7 3	0 6 3	0 5 3	Aloin, gr. 1-8th	0 7 0	0 6 0	0 5 0
6 " Asafetide Co.	0 9 0	0 7 0	0 5 0	205, gr. 1/2	0 11 0	0 10 0	0 9 0	Podophyllin, gr. 1-8th	0 7 0	0 6 0	0 5 0
8 " Colocynth Co.	0 11 0	0 10 0	0 9 0	206, gr. 1/2	1 3 1	1 2 1	1 1 1	Pulv. Cambog., gr. 1-32nd	0 7 0	0 6 0	0 5 0
9 " Colocynth et Hyos.	1 0 0	0 11 0	0 10 0	APERIENT PILLS.				Ext. Hyoscy., gr. 1-8th	0 7 0	0 6 0	0 5 0
11 " Ferri Carb.	0 7 0	0 6 0	0 5 0	45 Ext. Aloes Aquosum, gr. xx.				Capsicine, gr. 1-64th	0 7 0	0 6 0	0 5 0
13 " Hydrarg.	0 7 3	0 6 3	0 5 3	Pulv. Cambog., gr. iv.	0 9 0	0 8 0	0 7 0	"LITTLE" APERIENT.			
17 " Rhei Co.	0 7 3	0 6 3	0 5 3	" Jalapa, gr. viij.				68 Aloin, gr. 1-10th	0 7 0	0 6 0	0 5 0
ANTIBILIOUS.				" Colocynth., gr. vi.				Podophyllin, gr. 1-5th	0 7 0	0 6 0	0 5 0
129 Pil. Hydrarg., gr. i.	1 0 0	0 11 0	0 10 0	" Hyd. Subchlor., gr. iv.	0 9 0	0 8 0	0 7 0	Jalapin, gr. 1-10th	0 7 0	0 6 0	0 5 0
Ext. Coloc. Co., gr. iij.				" Sapo. Hyspan., gr. iv.				Ext. Nuc. Vom.	0 7 0	0 6 0	0 5 0
" Hyoscy., gr. i.				Gingerin, gr. ij.				Capsicine, aa, gr. 1-20th	0 7 0	0 6 0	0 5 0
130 Pil. Hydrarg., gr. i.	0 8 0	0 7 0	0 6 0	rt. Pil. xij.				"LITTLE" COUGH.			
" Rhei Co., gr. iv.				Each Pill contains Calomel, 1/2 gr.	0 9 0	0 8 0	0 7 0	412 Morph. Hydrochlor., gr. 1-32nd	0 7 0	0 6 0	0 5 0
TONIC PILLS.				46 As 45, with 1 gr. Calomel	0 9 0	0 8 0	0 7 0	Pulv. Scille	0 7 0	0 6 0	0 5 0
109 Pil. Ferri (Blaud) gr. iv. & v.	0 6 1	0 5 1	0 4 1	47 As 45, sine Calomel	0 9 0	0 8 0	0 7 0	Ext. Hyoscy., aa, gr. 1-12th	0 7 0	0 6 0	0 5 0
An improved form of unequalled excellence.				533 Aloes Barb., gr. iss.	0 7 0	0 6 0	0 5 0	Bals. Tolu, gr. 1-4th	0 7 0	0 6 0	0 5 0
212 Quinin. Valer.	1 7 1	1 6 1	1 5 1	Jalapin, gr. i.	0 7 0	0 6 0	0 5 0	"LITTLE" LIVER.			
Zinci Valer.				Coloc., gr. i.	0 7 0	0 6 0	0 5 0	410 Podophyllin, gr. 1-4th	0 7 0	0 6 0	0 5 0
Ferri Valer., aa, gr. i.				Cambogia, gr. i	0 7 0	0 6 0	0 5 0	Ext. Cascara, gr. 3-4ths	0 7 0	0 6 0	0 5 0
				Saponis, gr. ss.	0 7 0	0 6 0	0 5 0	Capsicine, gr. 1-20th	0 7 0	0 6 0	0 5 0
				Ol. Carui, gtt. 1	0 7 0	0 6 0	0 5 0				
				533 c. Calomel, gr. 1/2	0 7 0	0 6 0	0 5 0				
				" gr. i.	0 7 0	0 6 0	0 5 0				

PRIVATE FORMULÆ QUOTED.

SUPPOSITORIES, PESSARIES, CACHETS, BOUGIES, COMPRESSED TABLETS.

WAND (Pearl-coated Pill Factory), **LEICESTER.**



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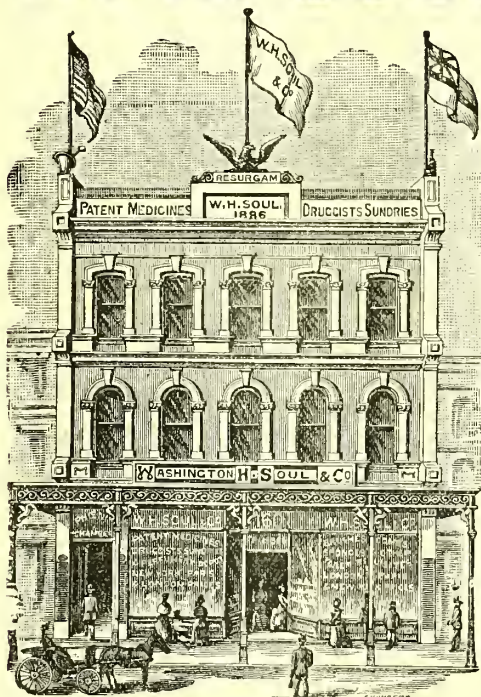
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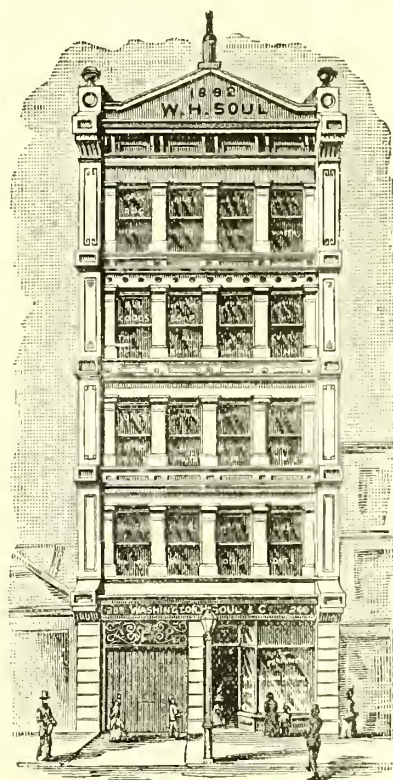
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LUCKNOW, OUDH, INDIA,**

Possess exceptional facilities for the
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Patent Medicines, Druggists' Sundries,
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All Orders by Post receive immediate attention.

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Have the Largest Sale of any Medicine in the World.

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And sold at 1s. 1d., 2s. 6d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.
Chemists and Druggists selling "Holloway's Pills and Ointment" can, on appli-
cation to the above address, or to the Wholesale House with whom they deal, be
supplied free of charge with Handbills and Posters with their name and address
printed at foot.

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**PURE CONCENTRATED
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as **PODOPHYLLIN, LEPTANDRIN, EUONY-
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So-called Concentrations are in the market, called by the same name as
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They are not made from the crude material, but by dissolving the
active principles in Alcohol in definite proportions, and
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Patent and Proprietary Medicines Agency.



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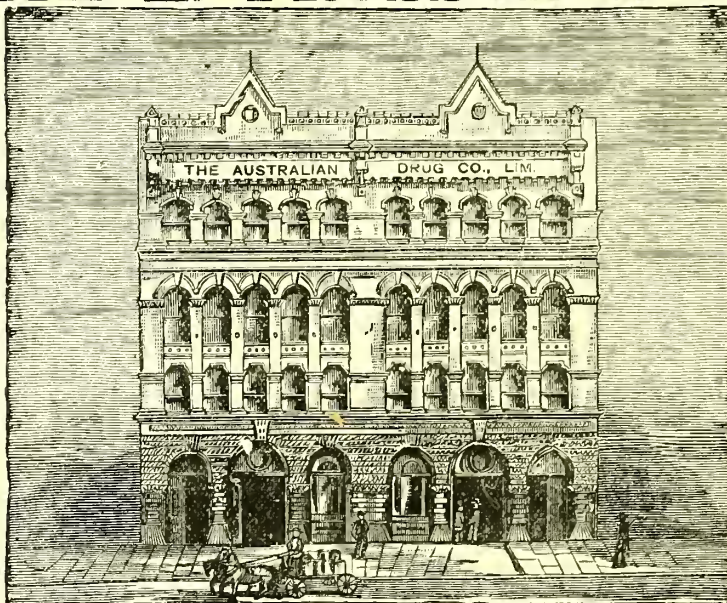
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SULPHATE OF QUININE, B. and S. Brand, and all other Cinchona preparations, also of ACETANILID, CAFFEINE, COCAINE, CHLORALHYDRAT, CUMARIN, GALLIC ACID, GLYCERINE, HELIOTROPIN, SALICYLIC ACID and SALICYLATES, STRYCHNINE, TERPIN HYDRAT, &c.
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CHEMICAL DISINFECTANT.

A 10 and 15% CARBOLIC
 Antiseptic and Deodorising
 Powder.
 In bags and casks free.

AGENTS WANTED

to supply Corporations and large users.

6d. and 1/- Decorated
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Special terms for 5 gross and upwards, with agent's name and address thereon.

CHESHIRE BIRD LIME.

In 1d., 2d., and 3d. tins.
 Also in 1, 2, 3, and 7 lb.
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*The new and attractively
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"COAGULINE" TRADE MARK.

Transparent Cement for
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CUE CEMENT. CUE-TIP FIXERS

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TIPS, WAFERS, CHALKS.

LAVA.

A fusible imperishable Cement
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SAPO LINI, OR LINSEED SOAP

(A Saponified Linseed Jelly).

In Brown Windsor or
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Prices, Circulars with Name and Address, Specimens, Show Cards, Glass Tablets, &c., &c., on application.

KAY BROTHERS LIMITED, Laboratory and Works, ST. PETERSGATE MILLS, STOCKPORT. Founded A.D. 1788. Incorporated 1887.

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This is the sort of fortune many an old-fashioned Varnish Maker has left behind him, but

PINCHIN, JOHNSON & CO.

23 Billiter Street, London, E.C.

Do not aspire to these big figures, but are anxious to prove that their

VARNISHES,

In 1 Gallon Cans free, as well as their

OILS AND COLOURS

are the BEST and CHEAPEST in the Market.

Telegrams—"PINCHIN LONDON."

WRITE FOR PRICE LISTS AND SAMPLES.

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HUBBUCK'S PURE OXIDE OF ZINC

THROUGH THE CHIEF WHOLESALE HOUSES.

THOMAS HUBBUCK & SON, L^{IM}

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PETROLEUM JELLY

WHITE, RED AND YELLOW
TRADE MARK
CONFORMS TO ALL
BEST AND PUREST
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CHEAPER AND EQUAL TO VASELINE, AND PRONOUNCED BY THE MEDICAL PROFESSION TO BE UNSURPASSED.

Tins of all sizes, from 1 to 10 lbs.; Iron or Wood Kegs, $\frac{1}{4}$, $\frac{1}{2}$, and 1 cwt.; Barrels about 3 cwt., &c. Samples and prices on application, stating packages and quantities required, to the Manufacturers—

SNOWDON, SONS & CO., MILLWALL, LONDON, E.

PAPIER MOURE. PAPIER MOURE.

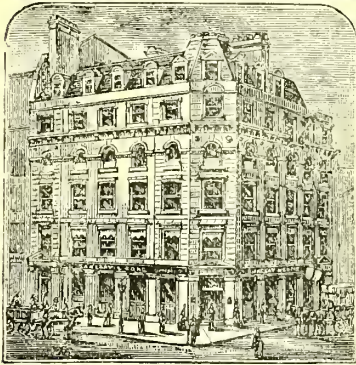
Per 1,000, 19/- 5 per cent. Monthly a/c.

IN QUANTITY OF NOT LESS THAN 5,000,
10 per cent. off INVOICE and 5 per cent. MONTHLY a/c.

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CAMEL HAIR BRUSHES

IN GLASS TOP BOXES.

1 gross Assorted in a Hinged Box, with Glass Lid with a good supply of spare sticks.

PLEASE
SPECIFY
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PER BOX
3/6 NET.



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WATER-
PROOF
LINT.

Victoria India Rubber Mills, **EDINBURGH.**

Samples, &c., on application.



I WILL pay £5 to the first person, whether Chemist, Assistant, or one of the Public, who will afford me such information (which I engage to treat as absolutely confidential) as shall lead to the conviction of anyone who improperly substitutes other Powder for mine. I call attention to the case below.

As a matter of fact, I took this course last year, and in the end the reward and heavy costs came out of the substituter's pocket; and I have every reason to believe that the course I adopted was highly satisfactory to the neighbouring Chemists, as well as to the Public and myself.

THOMAS KEATING,
12, BRIDE LANE, LONDON.

A "STORES" CAUGHT!

MR. JUSTICE STIRLING.—October 30, 1891.

KEATING v. KIBBLE.

THE Defendants are Proprietors of large Stores at Deptford, and when asked for "Keating's Powder," sold by their shopmen an article not made by me. The Defendants denied that this was done with their knowledge, and this may be conceded, but it cost them over £40, although in this instance I pressed my Solicitors to be as considerate to them as possible. The Court ordered the Defendants to pay the whole costs of the action, and issued an injunction restraining them from offering for sale any preparation other than that prepared by Thomas Keating under the name of "Keating's Insect Powder."

HEAVY DAMAGES.

Chancery Division—MR. JUSTICE NORTH—October 26, 1886.

KEATING v. POLL.

IT WAS ORDERED—

That the Defendant be perpetually restrained from stating or causing to be stated that Keating's Persian Insect Destroying Powder contains any substance poisonous to animals or human beings, or from making any statement to the effect that such Powder is dangerous to animals or human beings.

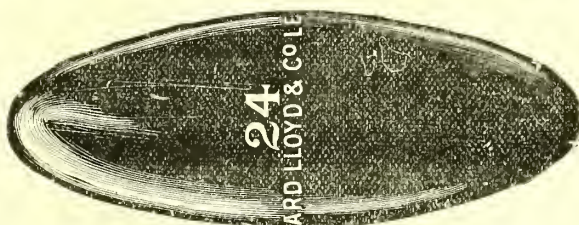
IT WAS FURTHER ORDERED—

That the Defendant, William Sheppard Poll, do pay to the Plaintiffs their costs of this action.

LLOYD'S "BI-CONICAL"

(CAPSULED)

HORSE BALLS



We are now making our CAPSULED HORSE BALLS according to the above improved shape, the advantage of which is that they are swallowed with the greatest ease, and as both ends are conical in shape they can be introduced either way.

The Capsule is black, and each Ball bears the number corresponding to the formula. The name of the buyer can be put on without extra charge (for orders of one gross assorted), and in smaller quantities are supplied **either with or without our name.**

The Capsule preserves the mass unimpaired for a very long time, and by retaining the moisture prevents the ball from becoming hard and partially insoluble.

The Balls are put up in boxes containing half-a-dozen.

For complete list of formulæ, see Monthly Price Current, which will be forwarded upon application.

A TRIAL ORDER WILL BE ESTEEMED.

Private Formulæ prepared in a few days.

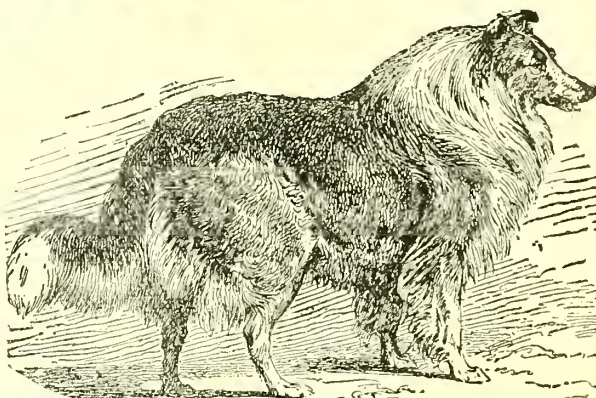
T. HOWARD LLOYD & CO.

Wholesale Druggists and Manufacturing Chemists,

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HAPPY AND FREE FROM FLEAS THROUGH USE OF SPRATT'S PATENT DOG SOAP

NON-
POISONOUS.



NON-
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SPRATT'S PATENT, LIMITED, BERMONDSEY, LONDON.
DAY, SON & HEWITT'S
NEVER FAILING HORSE, CATTLE & SHEEP MEDICINES.

THE CHEMICAL EXTRACT.

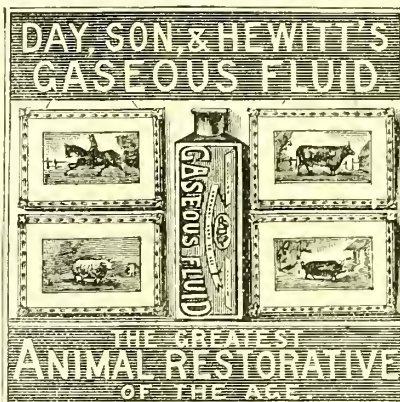
For Kicks, Cuts, Bruises, Sore Withers, Swellings Strains of Ligaments and Tendons, Saddle Galls, &c. It rapidly relieves Straining and Pain after Calving and Lambing, and is the remedy for Swollen Udders and Sore Teats.

Price 2s. 6d., 3s. 6d., and 7s. per Bottle.

THE CASEODYNE,

Used as Laudanum for parturition in Mares, Cows, and Ewes, when there is great pain exhibited with feverish symptoms. Highly beneficial for Inflammatory Colic or Enteritis, and for severe forms of Diarrhoea.

Price 3s. 6d. per Large Bottle.



For Fret, Colic, or Gripes in Horses, Hoven or Blown Sheep, and General Debility in Stock; of exceptional value for Colds, Chills, Scour, Diarrhoea, and weakly Lambs and Calves.

Price 1s. 9d. per Bottle, 20s. per doz.

THE RED DRENCH.

For Colds, Indigestion, Costiveness, Yellows, Surfeits, Loss of Cud, Pleurisy, Hilda-bound, Red Water, &c. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a hard time of Calving or Lambing.

Price: for Cows, 13s. per doz.; for Ewes, 3s. 6d. per doz.

THE BRONCHOLINE.

For Husk or Hoose in Heifers, Calves, Sheep, and Lambs, also Tape-worms in Tugs. No parasite can exist in the windpipe or air-passages after the blood has been impregnated with this worm-destroying medicine.

Price 2s. 6d. per Bottle.

**THE ORIGINAL
STOCK-BREEDER'S MEDICINE CHESTS,**
For Horses, Cattle, and Sheep. Prices, £1 8s. 9d. and £2 16s. 6d.

**THE ORIGINAL
HORSE-KEEPER'S MEDICINE CHESTS,**
For all ailments in Horses. Prices, £1 10s. and £2 17s. 6d.

ROYAL ANIMAL MEDICINE MANUFACTORY, 22 DORSET ST., LONDON, W.

Liberal Discount to Foreign Buyers.

Trade Terms and full particulars on application.
Attractive Show-cards and Handbills sent with each order.



ESTABLISHED 1842.



ESTABLISHED 1842.

HAYWARD'S "YELLOW" PASTE

IS A DEPARTURE, BUT AN UNDOUBTED SUCCESS.

HAYWARD'S YELLOW PASTE DIP is the most concentrated form of Sulphur-dressing, mixes with cold water, and is a great improvement on the old-fashioned sulphur dips. While keeping off the Maggot Fly, and destroying all Parasite Life infesting the animal, it does not make the wool harsh and dry, and when once a Sheep Owner has tried the "Paste" he prefers it to all other forms of Sulphur Dips. A 1/- tin is sufficient for 16-gallon Bath for 20 to 25 sheep, and this price need not be reduced; the terms we give allow a fair margin of profit. Our non-poisonous qualities are—Hayward's Liquid Dip and Hayward's "Glycerine" Dip, also Fly Powder in Chemist's own name. Send for prices and particulars.

Only Address:—TOMLINSON & HAYWARD, Mint Street Chemical Works, LINCOLN.



USED BY SURGEONS ALL OVER THE WORLD.

"EMP. HEMOSTATICUS"

Antiseptic
Styptic

(REGISTERED).

Constant testimonies are received to the value of this remarkable plaster.
Three-yard Tins, 2/- per Tin.

A. de ST. DALMAS & CO., LEICESTER,
Makers of Porous Plasters, Adhesive, Belladonna, Mustard, Court, and all other plasters
QUALITY GUARANTEED. MAKERS TO THE BRITISH GOVERNMENT.

DAY & SONS, CREWE,

ANIMAL MEDICINE SPECIALISTS.

THIS IS A REGISTERED TITLE. 'DAY'S BLACK DRINK'

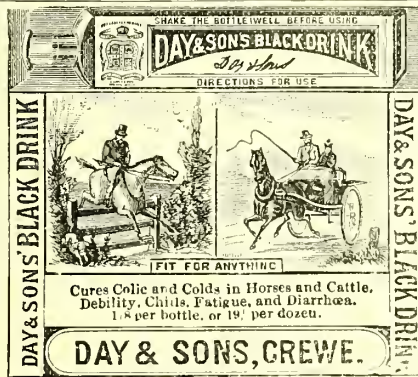
All kinds of "Black" things are offered in its name; the genuine only are made at Crewe.

THE "PURIFIED" DRIFFIELD OILS,

Commonly called "Day's Oils,"
"Day's Black Oils."

For Wounds of all kinds in all Animals.
For Saddle and Stake Wounds & Cracked Heels.
For Sore Teats and Swollen Udders in Cows.
For Anointing in bad Lambing and Calving.

Price 2s. 6d. and 6s. per Bottle.



Beware of Copyists.

THE 'BLACK DRINK'

is the most popular and certain Veterinary Remedy in the World. Don't confound it with Elixirs, Draughts, &c., which for obvious purposes are called "Black."

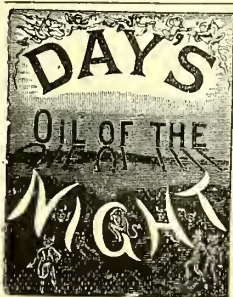
THE RED DRINK

OR COW DRENCH.

Cures Fever and Costiveness in Cattle.
Cleanses and Cools the Blood and System.
For Red Water, Indigestion, and Yellow. Cures Bad Cleansing and Prevents Milk Fever.

Price 12s. per dozen Packets.

The "EWE DRENCH" acts as above for
Sheep. 3s. 6d. per doz.



What's good for BODILY PAIN? DAY'S OIL OF THE NIGHT

The People's Embrocative Balm for Sprains, Muscular Weakness, Rheumatism, Lumbago, Cramp, Sore Throat from Cold, Sciatica, &c., and all Aches, Pains, and Soreness.
Send for "Day's Oil of the Night" terms, framed to prevent CUTTING.

Chemists can have a Single Bottle direct. Price 1/1½ & 2/9 per Bot.

DAY & SONS, CREWE, CHESHIRE.

You can rely on it.

And you don't enjoy
the privilege of
selling it for no-
thing.

The Retailer has his
profit.

GLASS BOTTLES.

TO WHOLESALE AND EXPORT BUYERS.

DISPENSING BOTTLES of best quality, in White Flint or all the best and newest tints. **VIALS**.—White Flint or Coloured, in all shapes and sizes. **FEEDING BOTTLES**.—Plain mouths or Screw Stoppers, in White or Green Flint. **LIME CREAMS AND KALIS** of all sizes. **ESSENCE BOTTLES** of every description, Plain or Stoppered. **MALT EXTRACT BOTTLES**, in Actinio Green, Amber, Dark Blue, or White Flint.

TO FOREIGN AND COLONIAL BUYERS.

Having recently erected spacious Warehouses we are enabled to give special attention to packing Goods for Export. Only experienced Packers employed.

E. A. HEARN & CO., WHOLESALE & EXPORT GLASS BOTTLE MANUFACTURERS, ECLIPSE GLASS WORKS, CHATSWORTH ROAD, CLAPTON, LONDON, E.

R. H. BARRETT'S PATENT CAPPED BOTTLE.

THE ONLY REALLY PERFECT BOTTLE FOR VASELINE, POMADE, DRY POWDERS, ETC.

NOTICE REDUCTION IN PRICES.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED in various colours, very attractive in appearance—1 oz., 10/6; 1½ oz., 11/-; 2 oz., 11/6; 3 oz., 13/6; 4 oz., 15/6 per gross.

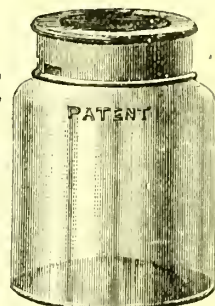
CHEMISTS' AND PERFUMERS' BOTTLES IN GREAT VARIETY, PLAIN OR STOPPERED.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

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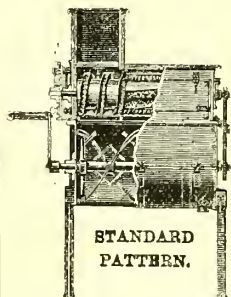
GARDNER'S

PATENT

"RAPID"

SIFTERS & MIXERS.

SEND FOR COPY.



STANDARD
PATTERN.

Many New Designs of these Machines are now added.

ADDRESS—

**WM. GARDNER, Engineering Works,
GLOUCESTER.**

GLASS BOTTLES

GOOD AND CHEAP.

From Stock
in London or
direct from
the works.

THE NEW SHAPE FLATS,

With rounded edges, or the ordinary kind, plain or graduated.

3 and 4 ounce 8/- per gross.
6 and 8 9/-

WHITE MOULDED PHIALS.

½ oz. 1 oz. 1½ oz. 2 oz.
3/6 .. 3/9 .. 4/6 .. 5/3 per gross.

PANEL BOTTLES.

2 oz. 4 oz. 6 oz. 8 oz.
7/- .. 8/- .. 9/- .. 9/- per gross.

SPECIAL NOTICE.—Six gross and upwards of assorted sizes sent Carriage Free to any part of England. Smaller quantities not carriage paid. Sample Bottle sent free on application.

I. ISAACS & CO., GLASS BOTTLE MANUFACTURERS,

25 Francis St., Tottenham Court Road, LONDON, W.C.

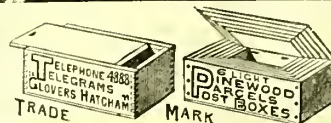
Established 50 Years. Bankers—London and Westminster Bank

"A CAPITAL IDEA"!!

Said friend JONES, the GO-AHEAD CHEMIST. "I'VE DOUBLED MY TRADE last year since I commenced packing all my customers' prescriptions in Glover's small wood boxes."

And JONES CHUCKLED!!

WOODEN
BOXES
ALL SIZES
MADE TO ORDER



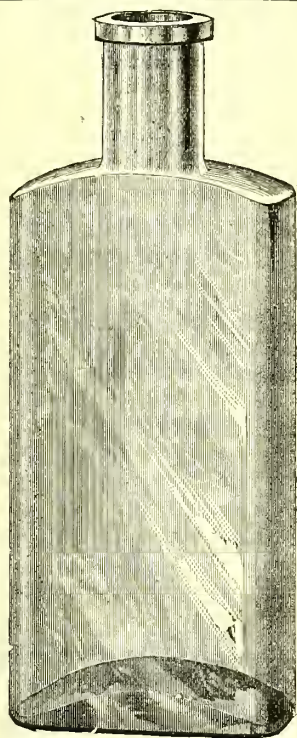
PRICE 14/-
per doz. nests of 6
Boxes, planed and hinged,
from 5" x 2 1/2" x 1 1/2" to
9 1/2" x 6 1/2" x 4 1/2". Nests of 6 for Bottles,
4 oz. to 16 oz., at same price. Single nest, 1/6.
Special prices for Large Quantities to Shippers.

"CAPITAL, INDEED"!!!

Said the Colonial Shipper. "Those light nested boxes, shipped in cases (each containing 1-gross nests), are just what is wanted, and I am getting repeat orders doubled. We are all indebted to the Makers,

Messrs. C. H. GLOVER & CO., of Hatcham Sawmills, Ormside St., Old Kent Road, LONDON, S.E."!!

GLASS BOTTLES



FLAT—with Round Edges.

DISPENSING BOTTLES.

BEST QUALITY,

SUITABLE FOR A HIGH-CLASS TRADE.

GREEN FLINT.

Flats (ordinary and round edges), Ovals, Direct Squares, Rounds and Octagons (plain, graduated, and lettered),

3	4	6	8	12	16 oz.
10/-	10/-	11/6	11/6	16/9	22/6 per gross.

WHITE VIALS (Plain and Graduated),

$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	3	4 oz.
4/6	4/9	6/-	6/9	8/9	10/- per gross.

SAMPLES ON APPLICATION.

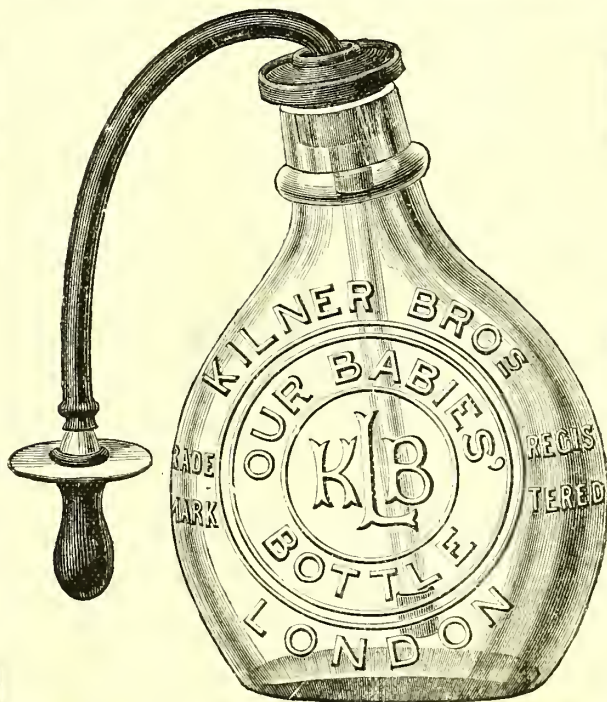
FEEDING BOTTLES.

No.	6 $\frac{1}{2}$ -inch Rubber Tube.	Small lots.	2-grs. lots
1.—	Green Bottles, Boxwood Top Corks,		
	White Fittings	25/6	24/6
3.—	Ditto, Black Fittings	28/6	27/6
	White glass 2/6 per gross extra.		
	China tops 1/6 per gross extra.		
34.—	Green Bottles, Glass Screw Stoppers,		
	White Fittings	31/-	30/-
36.—	Ditto, Black Fittings	34/-	33/-
	White Glass 3/- per gross extra.		

per gross.

These prices include 1 doz. partitioned Wood Boxer. If Bottles are loose 2/- per gross less.

Supplied each Bottle in Cardboard Box at 4/6 per gross extra.



MINERAL WATER BOTTLES AND BOXES OF ALL KINDS.

Illustrated Catalogue containing full particulars sent on application to

KILNER BROTHERS,

No. 3 GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.

AIR-TIGHT TINS & CANISTERS

FOR CHEMISTS & DRUGGISTS. ENAMELLED IN ALL COLORS

ARTISTICALLY ORNAMENTED

WITH VARIOUS DESIGNS IN GOLD, AND LABELLED TO ORDER

These Enamelled Canisters are a great improvement upon the old-fashioned Specie Jars, for, besides being unbreakable, they have a very handsome appearance when placed on Chemists' side-littings. Made in all sizes.

JOHN A. GILBERT & CO., 2 & 4 Mount Pleasant, **GRAY'S INN RD., LONDON, W.C.**
Elm Street,

THE FINEST BOTTLES IN THE MARKET, WITH WORLD-WIDE REPUTATION, ARE
SPECIALITIES. BRANDED THUS. SPECIALITIES.

Best Dispensing Bottles in all Shapes, including Round-cornered, and any Fancy or other Shapes for Proprietary Articles.



REGISTERED TRADE MARK.

Hand-made Rounds, Opal, Flint, and Turquoise Boxes.

Every attention given to any coloured and special-shaped Bottles.

White Flint, Blue Tint, Green Tint, Rich Dark and Pale Amber, Jet Black, Actinic Green, and all shades of Blue.

WHOLESALE ONLY.

BOXES

ESTABLISHED 1839

ROUND, OVAL, SQUARE, or FOLDING, for the
DRUG, DRYSALTERY, AND CONFECTIONERY TRADES.

LABELS, WHEN PRINTED TO OUR INSTRUCTIONS, WE PUT ON PILL
AND OTHER BOXES FREE OF CHARGE.

BOXES AND CASES FOR

Baking Powder, Black Lead, Bottles, Camphor Ball, Capsules, Castor Oil, Cough Lozenges, Dispensing Powder, Eye Ointment, Fancy Boxes, Fuller's Earth, Folding Boxes, Glass Top Outers, Homœopathic Bottles, Insect Powders, Ink Cases, Jewellery, Lozenge, Lip Salve, Magnesia, Metal Paste, Marking Ink, Nipple Shields, Night Lights, Parcel Post, Pastilles, Pills, Potash Tablets, Plasters, Salt Lemon, Seidlitz Powder, Starch Gloss, Soaps, Soda Powder, Syringes, Tapers, Tooth Powder, Violet Powder, &c.

ROBINSON & SONS, WHEATBRIDGE MILL & CHESTERFIELD.
HOLMBROOK WORKS,

And 55 FANN STREET, ALDERSGATE STREET, LONDON.

Fig. X.

*Above are suitable for
high-class Pharmacies.*

Fig. Y.

For complete List see Catalogue.

1d., 2/3; 3d., 5/6; 6d., 7/9; 1s., 9/- per gross.

3 pint 8/- each | 5 pint 11/6 each

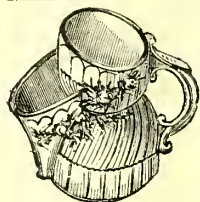


Fig. Z.

White and Gold	} New shape, Fig. Z. ..	{	6/-
Floral			7/-
1s. Globular shape			7/6
6d. Mug shape			4/-

Bathing Caps, Sponges, Sponge
Bags, Flesh Straps, Loofahs, &c., &c.,
kept in stock.

This pattern can be had with or without the A1 Brand on.

DAINTIEST PATTERN OUT.

THE SCENT OF THE SEASON.

Attractively put up, labels bearing photographs of Princess
May and Duke of York. 2/- dozen; 21/- gross.

SHIRLEY BROTHERS,
105 WHITECROSS ST., E.C.

Chemists are invited to apply to the CHEMISTS' ASSOCIATION (LIM.) for quotations for the following seasonable lines:

**WASHING GLOVES, SELTZOGES,
SPONGE BAGS & BATHING CAPS**

(SOME SPECIALLY CHEAP).

PERFUMES, PERFUME ODORATORS,
SALINE, "MAG. CIT.,"

EXT. GLYCERINE AND CUCUMBER, &c., &c.

THE CHEMISTS' ASSOCIATION, LIM.
CURTAIN ROAD, LONDON, E.C.

Wholesale Buyers should write for Terms and Samples of the
Cheapest and Best

GUTTA PERCHA OR METALLIC

TOOTH STOPPINGS

Which are Manufactured by J. J. LAKEMAN, Dentist, LEXINGTON,
Maker of the MERMAID IMPRESSION COMPOSITION for Dentists' use, 3s. per lb., post free.



DENTAL.

Our business is to supply Teeth, Instruments, Tools, Gas Apparatus, and every requisite for Dental Practitioners; full value at bottom prices. Paragon Rubbers, best and cheapest, half-pound each, mailed free for 10/9, as sample. Springs and Swivels, 2/6 dozen sets. Send for them! Complete outfits. Enquiries invited. Prompt despatch.

ELLIOTT & CO., 30 Hanover St., EDINBURGH.

PRECIPITATED CHALK, WHITEST PUREST.

CHEAPEST SELLERS IN THE MARKET.

ALSO CHEMICALS, DRUGS, AND OILS.

APPLY TO
AUG. LEVERMORE & CO., 8 LIME STREET, LONDON, E.C.



E. H. THIELLAY'S (Registered 1867)

MOUSQUETAIRE

A bright Fixing Liquid for the special training of the MOUSTACHE. Invaluable to Medical Men, repelling infectious miasma from the respiration. In Cases, with Brush, Pom., Hongroise, &c., at 2/-, 3/6, 6/-, 7/8, &c. Most successful Novelty, 2/- sample post free 15 stamps.

All Wholesale Houses, or direct from
E. H. THIELLAY,
Parfumeur-Chimiste, Amersham Park, New Cross, LONDON.
SHOW ROOMS AT CHARING CROSS HOTEL. (1)

EWALD HILDEBRAND, ARMY CONTRACTOR.



No. 680, 12s. per dozen, guaranteed.

HALLE a/S. GERMANY.

Fletcher's
Hydrobromates

Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing, by the Sole Manufacturers:—

Fletcher, Fletcher
& Stevenson,
21 Mincing Lane,
London, E.C.

"SILVERY WHITE GUTTA PERCHA ENAMEL" TRADE MARK. TOOTH STOPPING



P. A. STEVENS, Surgeon-Dentist,
72 MANSFIELD ROAD, N.W.,
SOLE PROPRIETOR AND MANUFACTURER.

Registered—No. 3745.

Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name. A sample box of 5d. sticks sent post free for 12 stamps. Price list and sample free.

TO LET.



VOL. II.
NOS. 1, 2 & 3.
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Full of Advertising Novelties and Blocks for all Trades.
The Annual Sub. is now 2s. 4d. Single Copies, 1d.

174 FLEET STREET, E.C.

OXONIA

The New Lotion for Rodent Ulcer, Cancer of Tongue, Lips, Lupus, Ringworm, Varicose Veins, &c.

Retail, 2/9 per Bottle Trade, 23/- per dozen, subject.

THOMAS CHRISTY & CO., 25 Lime Street, LONDON, E.C.

BLAUD'S PILLS (Best Quality, Soluble Coating).

10-gross Tins, carriage paid, for 4/6. Cash with order.

7-lb Tins (56 gross), carriage paid, for 21/-. Cash with order.

COMP. SULPH. LOZ. (Garrod's Formula) & TABLETS.

4 lbs., carriage paid, for 4/-. Cash with order.

7 lbs., carriage paid, for 6/6. Cash with order.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

JAMES N. DAVIDSON & GRAY, CHEMISTS, DUNDEE.

NOTICE TO ESSENCE OF RENNET MAKERS.

IRISH VELS

Imported for many years in casks, ranging from 50 to 100 dozen, by

A. & J. WARREN,

WHOLESALE DRUGGISTS AND METHYLATED SPIRIT MANUFACTURERS,
23 and 24 REDCLIFF STREET, BRISTOL.

Correspondents are requested to specify precisely the quantity they can buy.

COFFEE.

THE "ORIGINAL CANISTER" & ROASTED COFFEES

These Coffees have been before the Public for nearly 50 years, and are the very best of their kind.

WHITE, FAIRCHILD & CO., 30 Gt. Tower St., E.C.

ESTABLISHED 1847. AGENTS WANTED.

HAND-PICKED GUM ARABIC.

Wholesale and Export Druggists before buying elsewhere should apply to

FREDK. FINK & CO.

10 & 11 MINCING LANE, LONDON, E.C. [2]

MIKADON

CORN OINTMENT

Cure guaranteed or money refunded. Post free 1/1.

D. CHONG Laboratory
DERBYSHIRE. Matlock Bath

The only reliable cure for corns known.

Trade 8/6 per dozen, cash, Carriage paid.

Bromley's Gout & Rheumatic Pills
FREE Printing of Chemists' own Bills.
48 Sir Thomas's Buildings, Liverpool, Eng.

Established 1807.

WILL CURE.

CHEAPEST.

MOST PROFITABLE.

Not Sold under Price on Bez.

Send Hand-bill or Labels.

EADE'S GOUT and RHEUMATIC PILLS

Are the safest and most effectual remedy advertised for
GOUT, RHEUMATISM, AND ALL MUSCULAR PAINS.

GEORGE EADE, 72 GOSWELL RD., E.C.

Counter Bills and Show Cards on application.

EVERY CHEMIST

SHOULD STOCK

HEALD'S DOG MEDICINES.

They command a ready sale everywhere.

Address—HEALD, BURNHAM, BUCKS

PRIZE MEDAL,
International
Health Exhibition,
1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

AWARD OF MERIT
International
Sanitary Exhibition,
1881.

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, The London Sand-blast Works, 58a GRAY'S INN ROAD, W.C.

TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

THE WANT OF THE DAY!

NO MORE SOFT LINEN WHEN STARCHED.

Used in the Royal Laundries.

Should be used in Every House.

The Greatest Boon ever offered to the Laundress for
imparting an IVORY-FINISH to Starched Linen,
Laces, &c. It does not stick to spider-web-like
materials.



REGISTERED No. 40,376.

Once Tried, Always Wanted.

Makes Old Linen like New.

From the Chief Laundress to H.R.H. the Prince of
Wales:—West Newton, near Lynn, Norfolk, Aug. 29,
1879. Sir.—Having tried your "STARCH GLOSS," I
certainly think it a great improvement—far superior
to any I have tried. Yours truly,

To Mr. CRITCHLEY.

E. ELDER.

Sold by Chemists and Druggists, Grocers, Oilmen, &c., in Packets at 1d., 3d., 6d., and 1s. each.

PREPARED ONLY BY

T. CRITCHLEY, CHEMIST AND WHOLESALE DRUGGIST, BLACKBURN.

LONDON DEPOT—2 BEECH STREET, E.C.



VINCENT WOOD

LATEST SPECIALITIES.

The Vinwood Bath Glove (as sketch),	Gross Pairs
in Turco Linen, or Loofah, from ..	5s/-
Ordinary Style Turco, No. 1 quality,	
Bound ..	30/-
Ditto, Fancy Linen, No. 5 quality,	
Bound ..	48/-
Flesh Belts ..	78/-
Ditto, Turco and Loofah ..	90/-
Loofahs (large) ..	30/-
Enemas, as Higginson's, disconnected,	
each in Cedar-wood Box ..	30/-
Ditto, Seamless, best quality ditto,	
Cloth Covered Box ..	30/-

Largest bona fide maker of Surgical
Appliances in the World.

3 St. Andrew's St., Holborn Circus,
LONDON, E.C.

Estab. 1840. Trade Mark—V.W. "EUREKA."

Telegrams—"ACME LONDON."

SUPPORT HOME INDUSTRIES.



A.D. 1777.

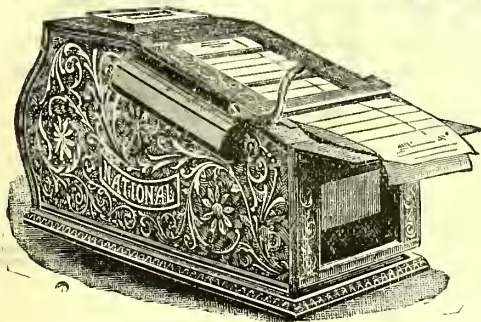
BUY
KENT'S
BRUSHES.

See pp. 85-88, Winter Issue; also Diary, 1893,
pp. 437-40.

SPECIALLY ADAPTED FOR CHEMISTS' AND DRUGGISTS' COUNTERS.

THE NEW "AUTOGRAPHIC" REGISTERS.

PRICE, £6 10s.



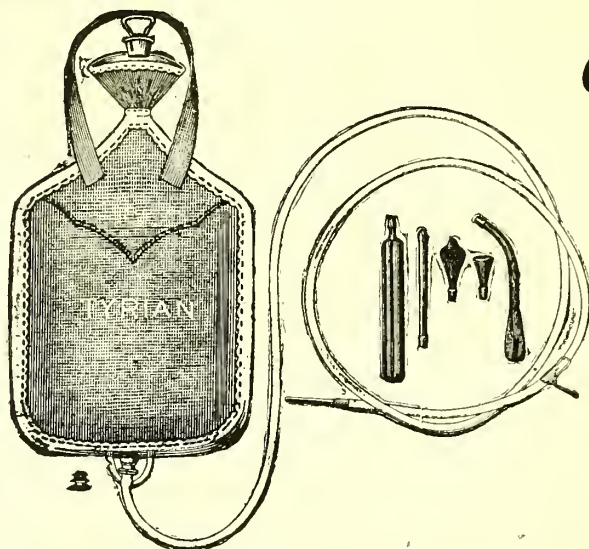
No. 225.—Manifolding National Cash Register

This Register is equipped with three rolls of paper. Any matter desired (usually a bill for goods) is printed on the top sheet of paper, which is ruled in appropriate lengths.

Carbon sheets are in position between the three rolls of paper; and when the items are written on the top sheet, a duplicate of the entire writing is made on the second sheet, and a triplicate copy, which is simply a summary, is made on the third sheet. All is done at one writing. The summary, showing the total amount of the sale, the date the name and address of the purchaser, and the salesman's initial or number, is automatically re-rolled inside of the register.

The first two sheets of paper are pulled out by the operator to the end of the bill, and then torn off.

London Office and Showrooms — 356 STRAND, W.C.
J. W. ALLINSON, SOLE IMPORTER.



“TYRIAN”

COMBINATION

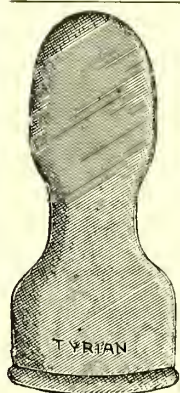
FOUNTAIN SYRINGE

AND

HOT WATER BOTTLE.

A first-class Hot Water Bottle, combined with a complete Fountain Syringe. Has six hard rubber pipes, the Rectal, Nasal, Eye, Spray, Bent Vaginal, and large Vaginal Irrigator.

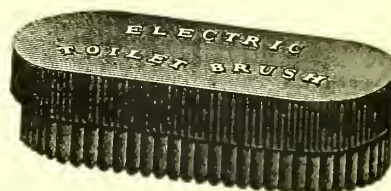
The Bag and Tubing are of Best Quality White Rubber, and guaranteed perfect. Packed in handsome wooden boxes. In two, three, and four quart sizes.



“TYRIAN” No. 85 NIPPLE.

TO GO OVER NECK OF NURSING
BOTTLE.

PURE,
DURABLE,
ECONOMICAL.



Bath & Flesh Brushes.

*Unsurpassed for removing Dirt or
Grease from the Hands.*

FAIRBANK'S FOUNTAIN SYRINGES.

“TYRIAN” NO. 19 SYRINGES.

PURE GUM EAR & ULCER SYRINGES.

“TYRIAN” BREAST PUMPS (with shield).

COMPLETE LINE OF ATOMISERS

AIR GOODS, BANDAGES, TUBING, URINALS.

COMPLETE LINE OF DRUGGISTS' SUNDRIES
MANUFACTURED BY

TYER RUBBER CO.

ANDOVER, MASS., U.S.A.

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